

CONTINENTAL SELLING PRICES: AUSTRIA Sch. 15; BELGIUM Fr. 25; DENMARK Kr. 3.5; FRANCE Fr. 3.8; GERMANY DMG. 4; ITALY L. 500; NETHERLANDS Fl. 3.5; NORWAY Kr. 3.5; PORTUGAL Esc. 20; SPAIN Pes. 40; SWEDEN Kr. 3.25; SWITZERLAND Fr. 2.5; EUR 1.5

NEWS SUMMARY

Finance
Defence
Starts
row

Neil Cameron, Britain's defence chief, told officers of the sixth tank division in a speech that "we both have an eye at our door whose capital is Moscow."

David Owen, Foreign Secretary, said in Birmingham yesterday that Sir Neil's visit to China designed to improve relations but not at the expense of links with the Soviet Union.

Norman Atkinson, Labour treasurer, called for Sir Cameron's resignation, while other Tory politicians condemned his remarks. The row was only four days after the Minister attacked "military makers" at the Ministry of Defence. Back and Page 2

Leysland offers cheap finance

LEYSLAND is launching a cheap finance scheme to compete with those offered by car importers. A study by the London-based Economic Models forecasting company says car imports will rise 12 per cent this year. Page 6

Marx is daubed or May Day

Karl Marx's grave at Highgate Cemetery North London, was smothered in red, white and blue paint. Aims for Freedom and Enterprise called for July 1 to be recognised as an annual holiday to celebrate free enterprise.

Mr. Eric Heffer MP demanded a "less work" charter at a Liverpool May Day rally.

Mine kills three

Three Senegalese soldiers of the UN force in Lebanon killed and one wounded their jeep ran over a mine.

ne frontier

Berlin, the U.S. released a former Air Force intelligence officer who passed secrets to the USSR in return for an American student who tried to smuggle an East German doctor and his wife in the West in the boot of his car. The swap came after the release of an Israeli soldier held in Lebanon for a week. Other prisoner exchanges may be in the offing.

Jgandan purge

Uganda reported that President Amin had dismissed Lieutenant Colonel Nasur, commanding officer of the Revolutionary Suicide Mechanised Regiment, which is believed to have been founded by Roman Catholics and giving their property to Muslims in the Masaka region, south-west of Kampala.

No surrender

Aly's Christian Democratic party, meeting last night in the wake of week-end letters from Aldo Moro, seemed intent on pursuing its policy of not surrendering to the terrorists' ultimatum to release named prisoners.

Briefly...

A rescue team found the body of Michael Edwards, a 30-year-old man, in the mud of a Three Oaks race, near Igleborough, north Yorkshire.

Labour has chosen Mr. Alan Roberts, chairman of the Manpower Corporation Housing Committee, as its prospective parliamentary candidate at Mole and Mr. Bill Homewood, Iron and Steel Trades Confederation, as its other candidate.

to soccer fans who admitted

hitting on the terrace at Saturday's match between Morton and Dundee were each jailed for three months by Greenock Court.

COMPANIES

● **HEPORTH** Ceramic Tiles has increased its offer for H. and R. Johnson-Richards Tiles to one bid. H. and R. Johnson-Richards Tiles is a subsidiary of H. and R. Johnson-Richards Tiles Ltd. The offer has been accepted. Page 30

● **SONATRACH**, the Algerian State-owned oil and gas company, is negotiating nearly \$1bn (£340m) worth of loans from international banks. Back

CONTENTS OF TO-DAY'S ISSUE

World news	2	Leader page	16
World news news	2	U.K. companies	30, 31, 33
Home news-general	4	International companies	34
Home news-sports	7	Foreign exchanges	31
Technical page	12	Mining notebook	31
Executive's and Office Wtd. 12	15	Wall Street	38

FEATURES

The outlook after the IMF meeting	16	Justicia	14
Society To-day: The immigration problems in the U.S.	29	The management of Local Authorities	12
Tim and Video: The future of the video disc	8	SURVEY	
		Mechanical Handling	17-28

For latest Share Index phone 01-246 8026

Pressure increases for reflation by West Germany

BY JUREK MARTIN MEXICO CITY, MAY 1

West Germany is facing increasing international pressure to apply extra economic stimulus before the Bonn summit in mid-July if it is to reach its stated growth target for this year of 3.5 per cent.

The U.S. is understood to advocate a direct West German tax cut. While not responding directly to this advice and while curtly dismissing some other criticisms, the Bonn Government has promised to review the economic evidence at the end of next month. It has not ruled out the prospect of reflationary action.

The concern with inadequate growth in general and that of West Germany in particular was the dominant theme at the weekend meeting here of the international committee of the International Monetary Fund, under the chairmanship of Mr. Denis Healey, the U.K. Chancellor.

The committee took few hard decisions, referring most controversial issues back to the executive board for further study before the fund's annual meeting in Washington in September.

This included the so-called "substitution account" proposed by Dr. Johannes Witteveen, the outgoing managing director, under which nations could, in effect, exchange surplus dollars for Special Drawing Rights.

The U.S. and West Germany objected to the proposal in its present form, but declined to press it outright.

The primary focus of the committee was on growth. An exceptionally blunt paper by Dr. Witteveen recommended targets of 3.5 per cent for 1978, down from the 4.5 per cent projected by both the Fund staff and the Carter Administration.

Recent U.S. economic policy was praised. The renewed anti-inflationary commitment and the move to higher interest rates were welcomed and it was felt that the decline of the value of the dollar had apparently "bottomed out."

Achievement of the Witteveen growth target would leave the U.S. with an underlying balance of payments deficit in 1980 of \$9.3bn, about half that of last year for the major industrialised countries.

West Germany would incur a \$4.2bn deficit, compared with a \$7.6bn surplus last year, while the Japanese surplus would be narrowed from \$11.2bn to \$2bn. The British surplus would be \$2.5bn, against last year's \$1.9bn.

Mr. Healey told journalists that the state of the world economy was in many ways unsatisfactory and that most member nations had been particularly impressed with the way Dr. Witteveen's analysis demonstrated the dangers of deflationary cycles. He rejected what he suggested was a minority view that the root cause of lagging growth was currency instability.

Those who believed that action on currencies alone could solve global problems were "doomed to failure."

There was a predictable element of defensiveness in the West Germany reaction to the call for growth, which was directed much more at the Federal Republic than at Japan, last year's favourite villain.

Several Ministers stressed their concern about the latest forecast of the five West German economic institutes projecting a meagre 2.5 per cent real expansion this year.

Herr Hans Mathieser, the West German Finance Minister, rejected both the internal forecasts and other external estimates.

Continued on Back Page IMF outlook Page 16

Permanent pay strategy sought by Callaghan

BY CHRISTIAN TYLER, LABOUR EDITOR

A NEW DEAL with the trade unions in which wages would be permanently tailored to fit Labour's economic strategy was outlined by the Prime Minister yesterday.

He chose Britain's first May Day holiday to spell out more clearly than before that he saw no future for free collective bargaining. He coupled this with an onslaught on the Conservatives' free market philosophy.

In a frankly electioneering speech, he appeared brimming with confidence that Labour had unlocked the secret of controlling wages without precipitating a revolt by the trade unions.

Mr. Callaghan clearly believes that the recipe will carry the party to victory at the General Election.

At the conference of the Association of Professional, Executive, Clerical and Computer Staff at Eastbourne, he promised the Government would work for a "new understanding" with the unions that would carry the Labour movement into the 1980s.

This was his chosen phrase for the next chapter of the social contract, a label that in many trade unionists' eyes stands only for wage cuts.

Referring to the talks begun between TUC leaders and Ministers, Mr. Callaghan set out the economic parameters within which the Government expected to reach a "consensus."

Inflation fear

He quoted no earnings target, but said that because inflation was coming down to under 8 per cent, and living standards were rising, "the level of wage claims in the next wage year—what you put—will probably start at a lower level than they did this year."

Hinting that the Government would be less severe in its exercise of the next pay restraint policy after July 31, he said that the lower wage claims would leave a "sufficient margin" for dealing with anomalies and stretching out differentials.

"It is now inevitable that the Government—any Government—must have direct discussions with the trade union movement about the future of pay each year."

The question was which political party would be involved in those discussions. "You had better trust us to work it out. Remember, the mess the others made of it is of no use to us."

The Government would ask the TUC to take into account reduced rates of inflation, the fact that earnings were rising faster than prices, the last two rounds of tax cuts, and the danger of resumed inflation next year.

Even at 7 or 8 per cent, the rate of inflation would still be too high, he said, and if exports were uncompetitive that would add to already high unemployment.

The Government wanted also to see if there was "real interest" among the unions in reducing overtime working.

Conscious of Tory moves to amend the Finance Bill, the Prime Minister said that taxes would be cut, but that Labour was not going to be drawn into a boom-and-bust cycle.

Mr. Callaghan said that the Government would be less severe in its exercise of the next pay restraint policy after July 31, he said that the lower wage claims would leave a "sufficient margin" for dealing with anomalies and stretching out differentials.

"It is now inevitable that the Government—any Government—must have direct discussions with the trade union movement about the future of pay each year."

GEC wins £50m. contract

BY JOHN LLOYD

A CONTRACT worth £50m. for the supply of two turbine generators to South Korea has been won by General Electric Company.

The contract was won against competition from the two leading U.S. generator manufacturers, General Electric and Westinghouse, and from Brown Boveri of Switzerland. It was signed yesterday in Seoul, only three months after GEC announced a £100m. order from Hongkong.

The latest order is for the design and supply of two 1,000 megawatt turbine generator units for the two nuclear power stations at Kori, the fifth and sixth nuclear stations in the country's electricity system. GEC has supplied a number of generators and other equipment for the other stations.

The work will be undertaken at the company's four plants at Larn, Northern Ireland, and at Manchester, Rugby and Salford. It will provide work for 600 men over the next three years.

The turbines ordered are among the biggest in the world.

Mr. Robert Davidson, managing director of GEC's turbine generator division, said yesterday that the Korean deal and the order in Hong Kong showed the company could compete successfully in export markets.

It had been forced to place much more emphasis on foreign market because of the cut in orders from the U.K. electricity industry.

The last order placed with GEC by the Central Electricity Generating Board was in 1974. It was for a turbine generator for Littlebrook power station.

Over the past three years, the GEC has taken export orders for machines totalling 7,500 megawatts, representing about 90 per cent of the U.K. export business in turbine generators in the period.

Mr. Davidson said, however, that even with the Korean order, the turbine generator division would be working at less than 80 per cent of capacity.

Finance for the contract has been arranged through the merchant bank of Lazard Brothers, in conjunction with the Export Credit Guarantee Department.

GEC praised the part played by the Department of Industry in arranging the terms with the ECED, and the assistance given the company by the U.K. ambassador to South Korea, Mr. W. S. Bates.

Mr. Alan Williams, Minister of State for Industry, said yesterday that the winning of the contract proved that the British power plant industry could compete in world markets.

Mr. Robert Davidson, managing director of GEC's turbine generator division, said yesterday that the Korean deal and the order in Hong Kong showed the company could compete successfully in export markets.

It had been forced to place much more emphasis on foreign market because of the cut in orders from the U.K. electricity industry.

The last order placed with GEC by the Central Electricity Generating Board was in 1974. It was for a turbine generator for Littlebrook power station.

Over the past three years, the GEC has taken export orders for machines totalling 7,500 megawatts, representing about 90 per cent of the U.K. export business in turbine generators in the period.

Mr. Davidson said, however, that even with the Korean order, the turbine generator division would be working at less than 80 per cent of capacity.

Finance for the contract has been arranged through the merchant bank of Lazard Brothers, in conjunction with the Export Credit Guarantee Department.

GEC praised the part played by the Department of Industry in arranging the terms with the ECED, and the assistance given the company by the U.K. ambassador to South Korea, Mr. W. S. Bates.

Mr. Alan Williams, Minister of State for Industry, said yesterday that the winning of the contract proved that the British power plant industry could compete in world markets.

Flexible aid plan for State oil

BY RAY DAFTER, ENERGY CORRESPONDENT

OIL COMPANIES may be asked to choose if they want to pay British National Oil Corporation's share of exploration drilling costs in the next round of offshore licences.

Proposed new conditions for the sixth round of drilling licences are expected to be published shortly in a Government consultative document.

It is almost certain that the State oil corporation will be given a majority stake in virtually all the new licences awarded—a condition which applied to the fifth round of allocations. But this time companies will be expected to pay at least part of the corporation's drilling bill.

The idea which seems to be emerging from the Department of Energy is that companies will be invited to make an offer on the amount they are willing to contribute to the corporation's expenses. The offer will be considered when the Department reviews applications for various divisions.

Companies have already indicated that they are opposed to paying the corporation's costs, which could amount to £2m. or more in some blocks for each well. Small, independent groups in particular have said that if the corporation's interest was to be carried by private industry they could not afford to compete in the sixth round.

However, the flexible formula to be presented to the oil industry may overcome some such misgivings.

Aim now is stable sterling exchange rate

By Peter Riddell, Economics Correspondent

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

THE GOVERNMENT intends to try to keep the sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official EEC reserves in April of more than £1.75bn.

In addition, the U.K. repaid about £1.3bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least \$3bn. The total at the end of March was \$20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent, and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of \$281m, and probably more than \$1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

Europe fibre cartel deal on way

BY RHYD DAVID

EUROPE'S leading fibre producers are expected to sign soon an agreement worked out in talks in Brussels for a market-sharing cartel, aimed at bringing fibre production and capacity into line with demand and reducing the heavy losses of the past three years.

Final details of the arrangement were settled at a recent meeting between producers and have been sent to Viscount Davignon, EEC Commissioner for Industry, under whose auspices the talks were started.

Member - Governments and trade unions representing workers in the industry are also being told the result of discussions.

Because of U.S. anti-trust laws the American-owned fibre producers Du Pont and Monsanto are not parties to the agreement.

The proposals envisage a stabilisation of capacity followed by a period of reduction, and a sharing of the market between producers in accordance with past performance.

Action will be taken under Clause 55/3 of the Rome Treaty which allows companies to take measures normally in breach of EEC rules in exceptional circumstances, such as the severe excess capacity in fibres.

Other suppliers will forfeit their share of 95,000 tonnes out of the total growth and this will be transferred to Italian producers, enabling them to increase their total share of the market from 17 to 21 per cent.

Monitoring of the system will be carried out by the European Federation of Fibre Producers, which will collect information from the producers and make adjustments on a six-monthly basis in accordance with market developments.

Efforts are also being made to persuade other producers in Europe who are not part of the cartel not to increase their market share.

These include smaller producers within the EEC; the subsidiaries of U.S. companies and producers on the fringe of the Common Market.

Companies involved in the discussions believe that any objections to the scheme from the EEC competition directorate have now been overcome and that the Commission will give its approval within the next few weeks.

When the agreement is sanctioned by the EEC and member Governments, the heads of the main chemical groups are expected to be summoned before Viscount Davignon to sign the agreement on behalf of their fibre subsidiaries.

A return to normal competitive conditions is assumed for the period after 1981.

EUROPE'S leading fibre producers are expected to sign soon an agreement worked out in talks in Brussels for a market-sharing cartel, aimed at bringing fibre production and capacity into line with demand and reducing the heavy losses of the past three years.

Final details of the arrangement were settled at a recent meeting between producers and have been sent to Viscount Davignon, EEC Commissioner for Industry, under whose auspices the talks were started.

Member - Governments and trade unions representing workers in the industry are also being told the result of discussions.

Because of U.S. anti-trust laws the American-owned fibre producers Du Pont and Monsanto are not parties to the agreement.

The proposals envisage a stabilisation of capacity followed by a period of reduction, and a sharing of the market between producers in accordance with past performance.

Action will be taken under Clause 55/3 of the Rome Treaty which allows companies to take measures normally in breach of EEC rules in exceptional circumstances, such as the severe excess capacity in fibres.

Other suppliers will forfeit their share of 95,000 tonnes out of the total growth and this will be transferred to Italian producers, enabling them to increase their total share of the market from 17 to 21 per cent.

Monitoring of the system will be carried out by the European Federation of Fibre Producers, which will collect information from the producers and make adjustments on a six-monthly basis in accordance with market developments.

Efforts are also being made to persuade other producers in Europe who are not part of the cartel not to increase their market share.

These include smaller producers within the EEC; the subsidiaries of U.S. companies and producers on the fringe of the Common Market.

Companies involved in the discussions believe that any objections to the scheme from the EEC competition directorate have now been overcome and that the Commission will give its approval within the next few weeks.

When the agreement is sanctioned by the EEC and member Governments, the heads of the main chemical groups are expected to be summoned before Viscount Davignon to sign the agreement on behalf of their fibre subsidiaries.

A return to normal competitive conditions is assumed for the period after 1981.

EUROPE'S leading fibre producers are expected to sign soon an agreement worked out in talks in Brussels for a market-sharing cartel, aimed at bringing fibre production and capacity into line with demand and reducing the heavy losses of the past three years.

Final details of the arrangement were settled at a recent meeting between producers and have been sent to Viscount Davignon, EEC Commissioner for Industry, under whose auspices the talks were started.

Member - Governments and trade unions representing workers in the industry are also being told the result of discussions.

Because of U.S. anti-trust laws the American-owned fibre producers Du Pont and Monsanto are not parties to the agreement.

The proposals envisage a stabilisation of capacity followed by a period of reduction, and a sharing of the market between producers in accordance with past performance.

Action will be taken under Clause 55/3 of the Rome Treaty which allows companies to take measures normally in breach of EEC rules in exceptional circumstances, such as the severe excess capacity in fibres.

Other suppliers will forfeit their share of 95,000 tonnes out of the total growth and this will be transferred to Italian producers, enabling them to increase their total share of the market from 17 to 21 per cent.

Monitoring of the system will be carried out by the European Federation of Fibre Producers, which will collect information from the producers and make adjustments on a six-monthly basis in accordance with market developments.

Efforts are also being made to persuade other producers in Europe who are not part of the cartel not to increase their market share.

These include smaller producers within the EEC; the subsidiaries of U.S. companies and producers on the fringe of the Common Market.

Companies involved in the discussions believe that any objections to the scheme from the EEC competition directorate have now been overcome and that the Commission will give its approval within the next few weeks.

When the agreement is sanctioned by the EEC and member Governments, the heads of the main chemical groups are expected to be summoned before Viscount Davignon to sign the agreement on behalf of their fibre subsidiaries.

A return to normal competitive conditions is assumed for the period after 1981.

EUROPE'S leading fibre producers are expected to sign soon an agreement worked out in talks in Brussels for a market-sharing cartel, aimed at bringing fibre production and capacity into line with demand and reducing the heavy losses of the past three years.

Final details of the arrangement were settled at a recent meeting between producers and have been sent to Viscount Davignon, EEC Commissioner for Industry, under whose auspices the talks were started.

Member - Governments and trade unions representing workers in the industry are also being told the result of discussions.

Because of U

OVERSEAS NEWS

Building industry may suffer from Fed's interest ruling

BY STEWART FLEMING

NEW YORK, May 1.

AMID MOUNTING concern about the threat to the housing industry posed by recent increases in U.S. interest rates, the Federal Reserve Board this morning approved a basic change in U.S. banking practice which could put further pressure on the hard-pressed savings and loan industry, a major source of housing finance.

The Fed has approved proposals to allow the automatic transfer of funds from savings accounts to current accounts at commercial banks. Under the Fed ruling, individuals would be able to make such automatic transfers from November 1 this year.

The new freedom will allow individuals to maintain low current account balances and transfer funds they do not need immediately to savings accounts which bear interest. For banks offering such a service it comes close to allowing them to pay interest on current accounts as well as savings accounts. Some banks, using electronic systems at branches, are ready to offer such a service.

Mr. Robert H. McKinney, chairman of the Federal Home Loan Bank Board has described the new regulation as another blow at the ability of thrift institutions to attract savings. Since the beginning of the year there have been sharp declines in some cases by as much as a third, in savings flowing into some of the main types of savings institutions.

In part, this is attributed to the growing attraction of invest-

ing in the public securities markets such as Treasury issues, where interest rates have been rising.

Mortgage interest rates have also been rising and last week Mr. McKinney said that recent moves by the Fed to put upward pressure on short-term interest rates had raised the spectre of double-digit mortgage interest rates. In March the average effective mortgage interest rate rose to 9.24 per cent.

The main worry is that declining savings receipts and rising mortgage costs will hit the housing market severely, and cause a slowing down which could spread to other sectors of the building industry.

Already Federal banking agencies are beginning to examine ways of helping the savings institutions, perhaps by raising ceilings on savings interest rates.

Last week Mr. William Miller, the Federal Reserve's chairman, said that such action might be necessary, at least on a temporary basis. Meanwhile in the financial markets there has been no widespread move to follow last week's increase to 8 1/2 per cent. In the prime rate announced by the nation's third largest bank, Chase Manhattan. Several smaller U.S. commercial banks have followed the increase, including the Harris Bank in Chicago this morning, but among the top banks only Marine Midland, the 13th largest, has followed suit. Other banks are still expected to follow later.

Peaceful May Day marches in Spain

In rallies throughout Spain, thousands of workers officially celebrated May Day for the first time since the Civil War. Robert Graham writes from Madrid. More than 150,000 people marched through Madrid in a major show of strength by the trade union movement. Organisers said the demonstrations were designed to impress on the Government of Sr. Adolfo Suarez the trade union concern over economic policies.

In Barcelona some 250,000 demonstrators turned out at the request of the Catalan trade unions. But there was no repeat of last year's violent clashes between demonstrators and riot police, writes David Gardner.

The main worry is that declining savings receipts and rising mortgage costs will hit the housing market severely, and cause a slowing down which could spread to other sectors of the building industry.

Already Federal banking agencies are beginning to examine ways of helping the savings institutions, perhaps by raising ceilings on savings interest rates. Last week Mr. William Miller, the Federal Reserve's chairman, said that such action might be necessary, at least on a temporary basis. Meanwhile in the financial markets there has been no widespread move to follow last week's increase to 8 1/2 per cent. In the prime rate announced by the nation's third largest bank, Chase Manhattan. Several smaller U.S. commercial banks have followed the increase, including the Harris Bank in Chicago this morning, but among the top banks only Marine Midland, the 13th largest, has followed suit. Other banks are still expected to follow later.

U.K. DEFENCE CHIEF IN PEKING

Chinese told Russia is 'our common enemy'

PEKING, May 1

BRITAIN'S DEFENCE chief, Sir Neil Cameron, today told officers from China's 6th Tank Division which guards Peking that the two countries had a common enemy in the Soviet Union.

"Our two countries are coming more and more together," he said. "This must be good because we both have an enemy at our door whose capital is Moscow."

Sir Neil, Marshal of the Royal Air Force and Chief of the Defence Staff, made the comment during a lunch at divisional headquarters after the British Government, excepting gunnery practice and manoeuvres.

He said: "There are men here with great spirit who will fight their tanks to the death if needed in the defence of China."

"Some of our problems are different, but one thing is absolutely clear to us, and that is the growing strength of the Soviet tank force. We must share, I believe, our common experience so that we are in the best position to take on the Soviet tank force if this should ever be necessary."

The Chinese officers applauded Sir Neil's statement. Sir Neil emphasised to correspondents later that he was not speaking for the Atlantic Alliance. "I'm certainly not speaking for NATO. I'm certainly not speaking for the British Government, excepting gunnery practice and manoeuvres."

He said: "There are men here with great spirit who will fight their tanks to the death if needed in the defence of China."

responsibility for strategic concepts and the authority of the Government to talk broadly about defence philosophy with Chinese leaders. Asked about the possibility of closer co-operation between NATO and China, he said: "I can certainly see none at the moment."

Sir Neil arrived in Peking last Wednesday and has had a long talk with Hua Guofeng, the Chinese party leader and Prime Minister. He visits a naval unit in Shanghai tomorrow, before returning to Britain.

Sir Neil told correspondents that he expected Chinese military delegations to visit Britain later this year, primarily to view technology. Questioned about the barrier to take-off aircraft, he said this was only one aspect

the Chinese were looking at in their defence planning. "I don't think it has gone any further than that."

Sir Neil suggested that key matters for modernisation included aerospace projects, air-to-air and surface-to-air weapons, low-level air defence systems and anti-tank equipment. The Chinese were also interested in marine propulsion units. "I think we just happen to have in Type and Olympus in the world," he said. Before visiting China, Sir Neil spoke at a news conference in Hong Kong of the tremendous growing Soviet threat. He mentioned Moscow's growing ability to move troops rapidly by air from one front to another.

No sign of progress in Iran oil talks

By Our Own Correspondent

TEHRAN

REPRESENTATIVE

National Iranian (NIOC) and Western consortium

crude 50 per cent

crude, to-day ended

round of negotiations

oil purchase agreement

sign of substantial progress

During the discussions

long-term relationship between

NIOC and the consortium was

reviewed, a NIOC statement said.

It added that the negotiations

would continue on a date to be

agreed.

Unlike the statement at the

end of the last two-week negotia-

tion session in March, to-day's

communiqué made no mention

of any progress in the talks and

did not indicate when they would

resume. The earlier statement

on March 14 reported "signifi-

cant progress in several areas."

Oil sources in Tehran believe

the latest round which began on

April 15, was stuck on basic

issues rather than minor details.

Service fee

The consortium, led by British

Petroleum with a 40 per cent

share, is understood to want a

service fee of about 30 cents per

barrel of crude oil produced.

Instead of the existing discount

system of 22 cents per barrel

purchased by the member com-

panies. It is understood that

NIOC reportedly has not yet

agreed to any switch from the

discount system.

The consortium has claimed

that, in practice, the discount

amounts to only about 11 cents

a barrel.

Another basic issue is NIOC's

insistence on firm predetermined

oil purchase commitments, with

penalty clauses if the con-

sortium companies fail to meet

targets and leave Iran with a

shortfall in oil revenue. The

consortium wants to make an

such arrangement as flexible

possible, according to industry

sources.

Other issues, including the pur-

chase by the consortium of oil

products from NIOC's Abadan

refinery, are also under negotia-

tion.

A 20-year sales-purchase agree-

ment was signed in 1973, but it

soon became obsolete because of

OPEC pricing provisions and is

largely disregarded by both sides.

Visitors to Hanoi report clashes on border

BY K. K. SHARMA

HANOI, May 1

SERIOUS FIGHTING took place between Chinese and Vietnamese troops on the border between the two countries about 10 days ago, according to diplomatic sources here.

Reports of the clashes were brought by foreign visitors who were in northern Vietnam to help with an agricultural project. They heard heavy artillery firing for the three days of their visit but had no information about the intensity of the fighting or whether it was continuing.

Relations between China and Vietnam are cool for many reasons including a border dispute. But so far neither side has made any public statement on the differences.

Officials in Peking have said the differences are in the nature

of "a family quarrel." They hoped the matter would be patched up. If the reports of clashes are substantiated, the quarrel has obviously become serious.

CHINA has said that large numbers of Chinese living in Vietnam are leaving for home, but gave no reason, reports Reuter from Peking. The announcement, by Zhao Cheng-chin, Vice-chairman of

the Chinese National People's Congress, surprised diplomats and observers here, although they said that they had expected some Chinese to seek to return home because of the recent abolition of "bourgeois trade" in southern Vietnam.

Chinese National People's Congress, surprised diplomats and observers here, although they said that they had expected some Chinese to seek to return home because of the recent abolition of "bourgeois trade" in southern Vietnam.

Chinese officials say that recently that the Vietnam-Cambodia issue had become more than a border dispute because of intervention by a super power—an obvious reference to Russia. Hanoi officials

declined comment on Chinese Minister's statement that the issue would be prolonged and would not be solved easily.

Vietnamese officials deny that their country is facing a "war by proxy" as western Press reports have suggested. One official said Vietnam did not need Soviet military help and could handle its problems itself because of its vast quantities of captured arms.

Officials insist that after winning prolonged wars against France and the U.S., Vietnam will never place itself in a position where its independence is compromised.

U.S. economic index down

BY DAVID BELL

WASHINGTON, May 1.

THE U.S. INDEX of leading economic indicators fell 0.1 per cent in March according to preliminary figures issued by the Department of Commerce today.

But the Department also reported that the February index—the indicators are chosen so that together they will give some indication of the future behaviour of the economy—rose 0.5 per cent, an odd not decline as first reported.

Analysts said that it was quite likely that to-day's figures might also be revised upwards on the basis of more complete information. But they conceded that most economists had expected a more dramatic improvement in

March. In line with administration forecasts that the economy had "snapped back" from the effects of the winter and the coal strike.

Two of the 12 indicators that make up the index—changes in inventories and net business formations—were not available. Of the remaining 10, six declined, including the change in total liquid assets, orders for plant and equipment and new orders.

Three rose including average work-week, vendor performance and building permits. The lay-off rate was unchanged. According to the preliminary figures the index stood at 134.1 at the end of March compared with 134.2 at the end of February.

U.S. bomb project

The U.S. wants to begin research on a new kind of nuclear bomb with high explosive power but low radiation, David Bell reports from Washington. The project is still very much in its infancy, said a spokesman.

Mrs. Margaret Thatcher, the British Opposition leader has said the West should build the neutron bomb as a defence against the Soviet arms build-up, our correspondent reports from Tehran. Mrs. Thatcher was on a four-day visit to Iran.

Bulgarians sacked

In Bulgaria, two deputy Prime Ministers and the Minister of Agriculture have been sacked apparently because of the country's disappointing economic performance last year. Paul Lendvai reports from Vienna. They are Mr. Sava Dulbov, Mr. Mako Dakov and Mr. Ganche Krustev.

Fukuda for talks on dollar

BY OUR OWN CORRESPONDENT

WASHINGTON, May 1.

MR. TAKEO FUKUDA, the Japanese Prime Minister, arrives in Washington today for two days of talks which are expected to concentrate on the weakness of the dollar and the continuing Japanese trade surplus.

The prime minister will see Mr. Cyrus Vance, Secretary of State, and other officials tomorrow and will meet President Carter on Wednesday. He will also meet key members of Congress who are expected to reinforce the Administration's call for Japanese action to reduce the \$8.9bn. trade surplus.

Ottawa code for S. Africa

BY VICTOR MACKIE

OTTAWA, May 1.

CANADA has announced a Code of Conduct for Canadian companies operating in South Africa. A Government document deals with working conditions, wages, fringe benefits, training and promotion, and race relations.

The code was announced by Mr. Don Jamieson, the External Affairs Minister. It says there is national concern about the extent to which Canadian companies are involved in an economic system based on racial discrimination. The code adds that the Government hopes that every Canadian

Ottawa code for S. Africa

BY VICTOR MACKIE

OTTAWA, May 1.

CANADA has announced a Code of Conduct for Canadian companies operating in South Africa. A Government document deals with working conditions, wages, fringe benefits, training and promotion, and race relations.

The code was announced by Mr. Don Jamieson, the External Affairs Minister. It says there is national concern about the extent to which Canadian companies are involved in an economic system based on racial discrimination. The code adds that the Government hopes that every Canadian

Ottawa code for S. Africa

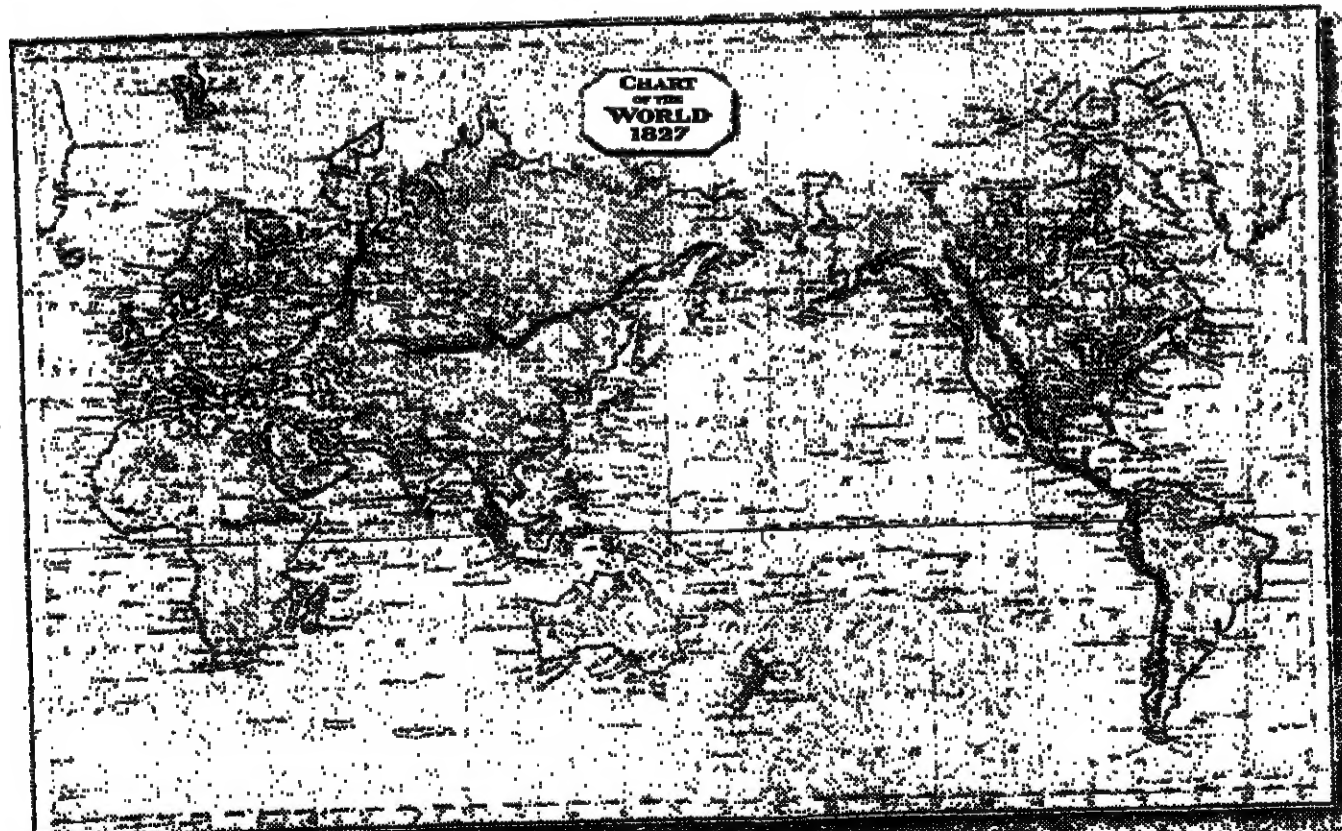
BY VICTOR MACKIE

OTTAWA, May 1.

CANADA has announced a Code of Conduct for Canadian companies operating in South Africa. A Government document deals with working conditions, wages, fringe benefits, training and promotion, and race relations.

The code was announced by Mr. Don Jamieson, the External Affairs Minister. It says there is national concern about the extent to which Canadian companies are involved in an economic system based on racial discrimination. The code adds that the Government hopes that every Canadian

When we started up in 1828 a lot of the map was still blank



150 years later we can complete the picture for you internationally

ANZ Bank is 150 years old this year. Its oldest constituent bank, the Cornwall Bank, was established in Tasmania in 1828—just a year after our map above was produced.

Since then the world has changed and so have we—into a bank with major international interests.

Keep up to date with the Australian international bank.

ANZ BANK
AUSTRALIA AND NEW ZEALAND
BANKING GROUP LIMITED
(Incorporated in the State of Victoria, Australia with limited liability)
71 Cornhill, London EC3V 3PR Tel: 01-623 7111 Telex: 5812741/9
Chatsworth House, Lever Street, Manchester
Tel: 061-236 4303 Telex: 666192

Methanol

Now on street from

The National Methanol Company's contribution to World demand is greatly increased by the commissioning of their new Methanol Plant at Brega.

Opened in December 1977 production has already reached significant levels, and

the quality and purity of the product has proved extremely high and well over accepted international standards.

The National Methanol Company are proud to take their place as leading producers of this important commodity.

NATIONAL METHANOL CO.

The National Methanol Company, P.O. Box 5324, Benghazi, Libya. Tel: 25897/27538. Telex: 40059/50605

20-year sales-purchase agreement was signed in 1973, but it soon became obsolete because of OPEC pricing provisions and is largely disregarded by both sides.

مطعمات العرب

WORLD NEWS

\$1.68m March trade surplus for Brazil

BY DIANA SMITH

ANILAO, May 1

FOR THE first time this year, Brazil achieved a modest surplus of \$1.68m in its trade balance. March exports totalled \$1.68bn, while imports totalled \$1.087bn.

This brings the quarterly deficit to \$345.82m, compared with \$149.4m for the same period in 1977. The principal culprit is heavy oil imports, in order to build up stocks, and the combined effects of reduced plantations, long droughts or lower world prices of soy, coffee, maize and sugar exports. These factors could, according to official estimates, cut export revenues on agricultural products by \$1.5m by the end of 1978.

While shifts in focus, away from the traditional areas of agriculture towards intensive industrial development—which cannot be achieved without heavy imports of capital goods and some raw materials—and the effects of the world steel recession on iron ore exports, the country is having to alter the nature and markets of its products.

The five countries where Brazil places 40 per cent of its 1977 exports—the U.S. (24.35 per cent), West Germany (2.06 per cent), the Netherlands (4.98 per cent), Japan (4.52 per cent) and France (4.07 per cent)—are not easy markets for the manufactured goods and services Brazil hopes to sell abroad in growing quantities. The developing countries have thus become logical targets.

Bonn check on Comecon vessels

By Adrian Dicks

BONN, May 1

THE West German Government, under increasing pressure to help the hard-hit shipping industry, has decided to introduce rules under which East European vessels would have to register with the German authorities before undertaking business between West Germany and ports in third countries.

No date has been announced for the introduction of the registration requirement, which for the time being appears to be mainly a warning to the Soviet Union and other East European shipping fleets accused by German shippers of unfair price-cutting.

A fulfilment of negotiation between Bonn and Moscow has been going on for a year or more, and the West German Government is still officially hopeful that this will produce results. If it does not, German officials are already hinting that the new registration requirement might be backed up with a licensing system for East European ships plying certain conference routes. Announcing the registration move, the Bonn Government also repeated its concern to bring about a joint approach to the problem by the European Community.

At a Press conference here last month, Herr Nikolaus Schues, president of the West German shipowners' federation, said that in some instances Soviet shippers were undercutting West German lines on North Atlantic container services by as much as 50 per cent.

The broad question of price dumping by Comecon shipping lines is expected to be discussed by European Community Transport Ministers in June. According to figures published by West German shipowners, Soviet vessels now carry up to 95 per cent of freight in bilateral traffic with some member countries of the Nine as well as 18 per cent of east-bound and 22 per cent of west-bound freight on the North Atlantic.

Pao urges Japan to adopt charter buy-back scheme

BY CHARLES SMITH

TOKYO, May 1

JAPAN COULD "unload" From the point of view of the Japanese shipping lines themselves the arrangement would be a means of release from long-term charters on vessels which cannot earn their keep while the world shipping market is at its current low ebb.

This was claimed by Mr. Y. K. Pao, chairman of the World-wide Shipping Group of Hong Kong, in an exclusive interview with the Financial Times.

Mr. Pao proposed his buy-back plan early this year to Japanese businessmen and politicians (including the Prime Minister Mr. Takeo Fukuda). Official Japanese reactions to the plan have been extremely guarded but Japan's latest import promotion package provides for a new form of low interest rate foreign exchange financing, through the Export Import Bank, which could be applied to the repurchase of Shikumen ships. Whether or not the Japanese Government will "guide" shipping lines in this direction remains unclear.

A Shikumen charter is one in which an overseas shipowner orders a ship from a Japanese yard to the specifications of a Japanese shipping line and then charter the ship back to the Japanese shipping line for the whole (or most) of its expected operating life.

The arrangement was devised to allow Japanese shipping lines the chance of operating foreign registered ships which could be manned with non-Japanese crews and would therefore be cheaper to operate than ships registered in Japan. Shikumen charters account for a large part of the tonnage of independent Hong Kong shipowners, including World-wide which has about half its fleet on charter to Japan.

Apart from providing Japan with a means of "unloading" foreign exchange the repurchase of Shikumen ships by Japanese lines would reduce over-capacity in the world tanker market since the ships would almost certainly be scrapped by their new owners.

Vietnam to establish motor project with foreign partner

BY K. K. SHARMA

HANOI, May 1

THE VIETNAMESE Government expects to sign an agreement shortly with a foreign company for car manufacturing in this country.

The choice will be made from offers received from Japanese, French and West German companies. The company selected will be subject to the same liberal conditions as is being offered by Vietnam for private foreign investment in almost all sectors.

The Government has decided that it does not have sufficient funds for development of the economy and that help from other Socialist and friendly countries will not be enough either for the reconstruction and development at the required pace. Hence private foreign investment will be welcomed and are more liberal than those offered by most third world countries.

So far the only agreements reached are with Italian and West German companies on offshore exploration for oil but these are of a special nature.

Talks are now in progress with companies from Europe, Japan and Canada for collaboration in areas like fruit processing, light industry, textiles and pharmaceuticals. But prospects are bright in many other fields since the Government notification says "the foreign party may invest in exploitation of natural resources, agriculture, industry, building, transport, etc., with the exception of those fields and branches which the Government reserves for itself." Officials say the Government has few reservations and welcomes foreign investment in almost unlimited areas.

The only stipulation is that foreign investors must agree to maximum ownership of 49 per cent of the equity—only those companies which agree to export their entire production will be allowed to be 100 per cent foreign owned. The clause that most foreign companies find unwelcome is that all ventures must export at least as much as would cover repatriation of profits and costs of imported raw materials. But Vietnam insists that this is a way of preserving valuable foreign exchange.

Foreign companies investing in Vietnam will be given guarantees against nationalisation for 10 to 15 years but longer periods can be negotiated. In the event of nationalisation compensation in foreign exchange of agreed amounts will be paid. Various tax concessions are offered and

Japanese payments accord

BY OUR FAR EAST EDITOR

TOKYO, May 1

JAPAN and Vietnam exchanged the principle that "successor" Governments must accept responsibility for the debts incurred by their predecessors. To have publicly abandoned this principle would have been embarrassing for the Ministry of Foreign Affairs.

The undertaking to provide low interest loans at the rate of 20bn, over the next two years marks the start of regular Japanese aid to Vietnam. The amounts are relatively small in relation to Japanese aid to member countries of the Association of South East Nations (Indonesia, Thailand, Malaysia, the Philippines and Singapore). For example, Japanese aid to Thailand is running at roughly double the level envisaged for Vietnam. To have offered the Vietnam Government aid equivalent to the amounts being dispensed to ASEAN would probably have provoked complaints from ASEAN members.

In a view of ASEAN sensitivity Japan appears to have adopted a low profile throughout the negotiations with Hanoi but the two-year talks with a financial arrangement developing trade are nevertheless while Japan has managed to less considerable.

Dubai oil concessions

BY CELIA MAY

DUBAI, May 1

TWO AMERICAN oil companies have been granted exploration rights both on and offshore in the Emirate of Dubai, which presently has an annual oil production of 360,000 barrels a day from offshore fields.

South Eastern Drilling Company (SEDCO) and Houston Oil & Minerals will explore a 630,000-acre area over a period of 35 years. The concession area was previously held by Texas Pacific Oil which gave up its rights last year. During that time two dry wells were drilled offshore. According to the new concession seismicograph surveys must begin in two months.

Dubai Petroleum Company has over 50 wells offshore which are in production, but it has been some time since any new oil finds have been found in Dubai and it was thought that most likely the reservoirs had been exhausted. However, Dubai is not so dependent on its oil revenue as some other Gulf states—its neighbour, Abu Dhabi is the major oil producer with 1.7m barrels a day.

Exploration is also continuing in other emirates but so far only Sharjah has any production capacity. Houston Oil and Minerals is already drilling off Umm Al Quwain, one of the smallest of the emirates.

Kuwait has given Malta a \$42m soft loan which will finance the creation of a fishing fleet and a separate drainage scheme.

Our Valletta correspondent writes: The loan, which carries a 3 per cent interest is repayable in 15 years time. Malta has already received loans amounting to nearly £11m (£14m) by Saudi Arabia and Abu Dhabi to help in the building of a \$440m transshipment port at Marsa Lakkon, the island's south coast.

Record U.S. steel imports

U.S. STEEL imports in the first three months this year totalled 5.75m. tons, the highest ever quarterly figure, compared with 5.3m. in 1977, the American Iron and Steel Institute reported.

Japan accounted for 2.1m. tons and the EEC nearly 2m., the institute said in a statement.

March imports alone came to just under 2m., 74 per cent higher than March 1977. Reuter

United Airlines buys DC10s

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

HOPES THAT United Air Lines of the U.S., the biggest airline in the Western world, might buy some of the European Airbus Industrie A-300 airbuses have been dashed by the airline's decision to order five McDonnell Douglas DC-10 tri-jets, worth \$170m. (over \$80m.) with an option on another ten DC-10s.

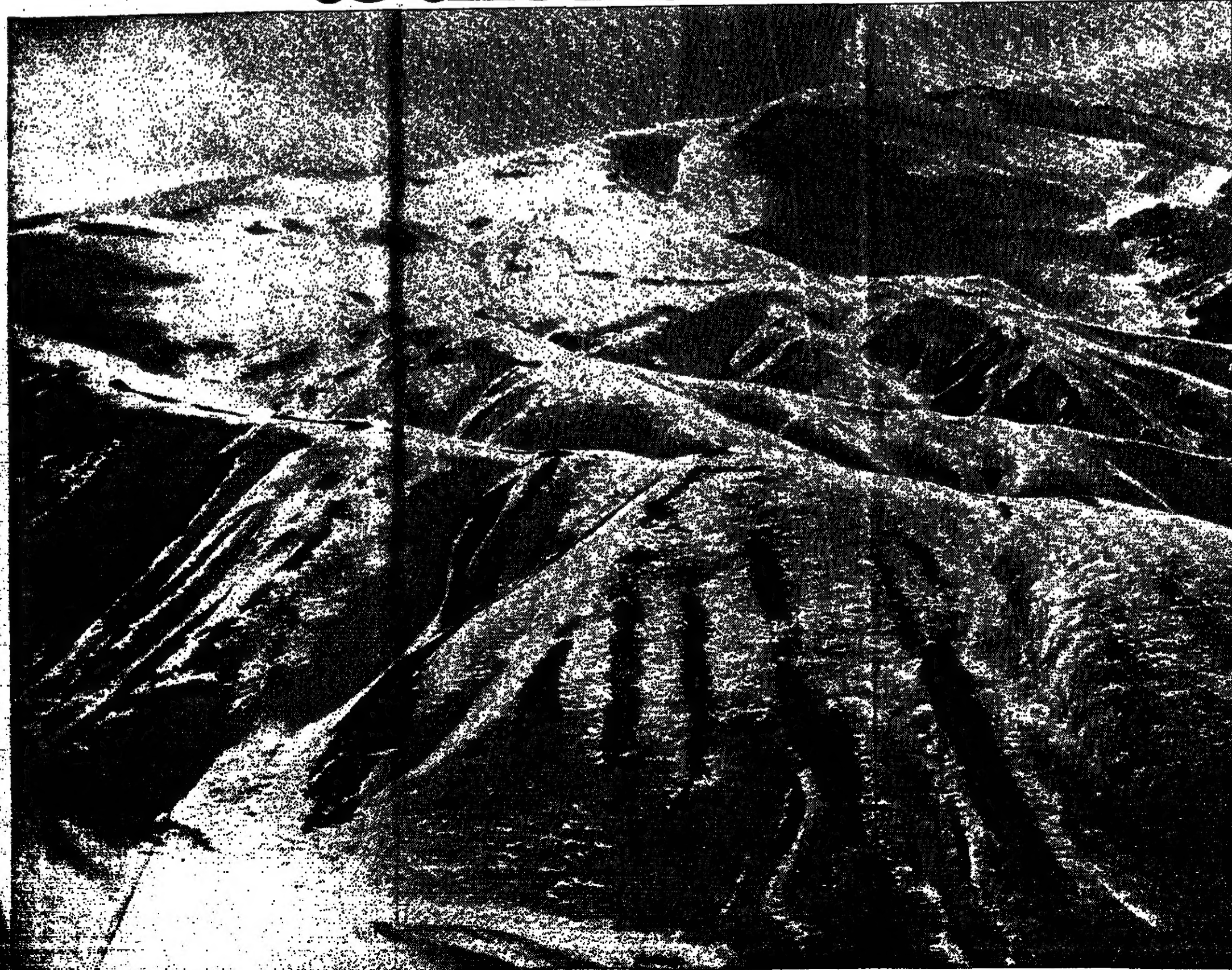
The airline had been studying the 250-plus seat A-300 as one of a number of types to replace ageing narrow-bodied equipment in its fleet, such as DC-8s, which have been in service since the late 1950s and early 1960s.

United sent a top-level team to Toulouse recently to study the A-300. Following the recent order for 23 A-300s by Eastern Air Lines, Airbus Industrie had high hopes of winning further U.S. orders, with United at the top of its list.

World Economic Indicators

		UNEMPLOYMENT							
		April 78	March 78	Feb. 78	April 77				
U.K.*	000s	1,387.1	1,400.0	1,409.0	1,322.6	Holland*	000s	1,387.1	1,400.0
	%	5.8	5.9	5.9	5.6		%	5.8	5.9
France*	000s	1,201.9	1,198.7	1,202.7	1,199.8	W. Germany	000s	1,098.9	1,224.9
	%	5.1	5.0	5.1	5.2		%	4.9	5.4
Japan	000s	1,086.1	1,080.3	1,027.7	1,002.5	U.S.*	000s	1,086.1	1,080.3
	%	2.6	2.5	2.4	2.4		%	6.1	6.0
Belgium	000s	6,148.0	6,090.0	6,260.0	7,064.0	Italy	000s	6,148.0	6,090.0
	%	4.2	4.1	4.3	7.3		%	11.8	12.1
Italy	000s	299.5	299.5	299.5	260.0	Seasonally adjusted. † Provisional.			
	%	12.1	12.1	12.0	9.8				
Belgium	000s	1,520.0	1,598.0	1,492.0	1,459.0				
	%	8.0	8.0	8.5	8.8				

We're planning a railway line close to the Russian border



And if that sounds a bit outlandish, there's a simple explanation: Iran's need to modernise her railway system.

British railway engineers are planning a route that links Teheran to Tabriz near the Russian border.

The toughest part of the project is the northern end of the route, where a brand new railway will have to go through wild and mountainous country.

It may come as a surprise to learn that British Rail is exporting its skills and technology all over the world.

But no railway industry anywhere has more experience than ours.

Which explains why, right now we're working on a record order book with contracts for rolling stock from Africa and the Far East worth more than forty eight million pounds.

One way or another, British Rail travels further than you think.

British Rail
The backbone of the nation.

Goldsmith agrees to join Patino Board

World V

Callaghan may postpone election until next year

Institutions i

Institutions invest £6.5bn.

Value of the P

Invest £6.5bn.

Handling sector urged to boost exports

One Pound

Express considers return to Scottish printing

has had to meet early deadlines to catch trains to Scotland. This has made inclusion of late Scottish news and sports results difficult and in consequence the paper has lost sales to its Scottish rivals.

Whitehall 'may curb consumer spending soon'

Liberals decide to fight Hamilton by-election

Liberals decide to fight Hamilton by-election

which was carried by one vote. A Liberal candidate stood in the October, 1974, General Election and received only 1,500 votes, about 4 per cent of the poll. The party did not fight the last Scottish by-election a month ago in the Garscadden constituency in Glasgow.

A new candidate has not

Labour has not chosen a candidate, although several prominent members of the party in Scotland are in the running, including Mr. George Robertson, a Right-winger, who was chairman of the party last year, and Mrs. Janet Buchanan, chairman of the Scottish party and wife of Mr.

World Value of the Pound

Scheduled Territory; (o) official rate; (F) free rate; (T) tourist rate; (n.c.) non-commercial rate; (n.a.) not available; (A) approximate rate no direct quotation available; (sg) selling rate; (bg) buying rate; (nom.) nominal; (exC) exchange certificates rate; (P) based on U.S. dollar parities and going sterling dollar rate; (B) bankers' rate; (Bas) basic rate; (cm) commercial rate; (cn) convertible rate; (fn) financial rate.

LOCAL ELECTIONS: WEST MIDLANDS 1

May Day carnival fun conceals Labour's poor election chances

Because of the vagaries of the council electoral system arising from the 1974 re-organisation of local government, Labour is defending almost twice as many

... Sandwell, where Labour is
defending 21 seats to the Tories'
... Labour's present ten-seat
majority is jeopardised by some
... Labour ...

A more likely Conservative

COMPANY NOTICES

RENOWN INCORPORATED

NOTICE TO E.D.R. HOLDERS

Thomas Cook Bankers

Thomas Cook Travellers Cheques

The accepted name for money. Worldwide

For each $\mathbf{v} \in \mathbb{R}^n$, let $\mathbf{v} = (v_1, \dots, v_n)$. Then $\mathbf{v} \in \mathbb{R}^n$ is a vector in \mathbb{R}^n if and only if $\mathbf{v} = (v_1, \dots, v_n)$ for some $v_1, \dots, v_n \in \mathbb{R}$. This is a standard result in linear algebra.

PEARL ASSURANCE COMPANY LIMITED



"We have been able to make substantial increases in the bonuses of United Kingdom Policies"

Statement by the Chairman, Mr. F. L. Garner

At this time last year I reported upon changes which had taken place both in the membership of your board and in its overall structure. There have been no changes in membership since that time but one director, Mr. A. Moore, on reaching the age of sixty five joined the non-executive category. Mr. A. G. Grant, the Company's Surveyor, retired at the end of October, 1977, concluding a long and distinguished career devoted to the Company's interests, for which I and my colleagues would like to record our appreciation. His deputy for many years, Mr. S. Bennett, was appointed in his place.

The Government having published some months ago a White Paper setting out suggestions for new legislation covering the role and responsibilities of company directors, many interested bodies are currently expressing views on the subject. Measures designed to combat the abuse of position or of privileged information must be welcomed, but there is a danger that efforts will be made to define general directorial responsibilities much too closely. A board must be expected to take into account the interests of various parties. Since these include shareholders, customers and employees, inevitably those interests will at times conflict. It should however be left in no doubt that the overriding task of a board is to secure the efficiency and long term prosperity of the business, which is after all an essential to the well being of all parties concerned. This must be the common guiding range of all directors, and it should not be weakened by putting the interests of different parties into the care of particular groups of directors.

It is to be hoped that no attempt will be made to lay down rigid rules as to the construction of boards, and that it will be recognised that there is no one formula suitable to all types of enterprise.

LONG TERM BUSINESS

New Life Business

In the industrial branch our new business for the year was affected by the dispute with our agency staff to which further reference is made below. In consequence, new annual premiums fell for the first time since 1974, from £15.0 million to £12.7 million. New sums assured also fell from £234 million to £190 million. In the ordinary branch the effect of the dispute was much less marked. During the year we successfully introduced our new self-employed deferred annuity contract; as a result, annuities per annum increased from £3.7 million to £13.4 million but new sums assured fell from £363 million to £342 million. New annual premiums were up from £8.5 million to £9.0 million but annuity considerations and single premiums fell from £7.2 million to £5.2 million. The comparative figures for 1976 omit the South African business, which, as reported last year, was disposed of at the end of 1976.

The above figures exclude the new business obtained by our subsidiary Pearl Assurance (Unit Funds) Limited, which specialises in the issue of asset-linked policies. We introduced new sales methods during the year on an experimental basis. New annual premiums consequently increased from £7,000 to £255,000 (£210,000 after reinsurance of the death risk with the parent company) and new single premiums from £175,000 to £1.3 million. In view of this success we are increasing the specialised sales force in 1978 and look forward to another large increase in premium income for our subsidiary.

Life Business in Force

The total life business in force at 31 December 1977 comprised sums assured and bonuses of £3,280 million, £1,348 million in the industrial branch and £1,932 million in the ordinary branch. A year previously the total was £2,990 million after excluding the South African and Canadian businesses. Annuities and bonuses amounted to £40.1 million per annum compared with £27.9 million. Combined premium income (including annuity considerations) was £130 million, £76 million in the industrial branch and £54 million in the ordinary branch, compared with £119 million. Total payments to policyholders in the form of claims, surrenders and annuity payments amounted to £84 million compared with £79 million for the previous year. Surrender payments increased from a total of £14.0 million to £15.7 million. While we are always sorry to see any policyholder lose some part of his benefit through early surrender of his policy, we feel that surrenders have been at a satisfactory low figure in view of the pressure that inflation has exerted on savings during the year. In both branches the expense ratios have been reduced, from 40.51 to 40.02 per cent in the industrial branch and from 35.64 to 34.10 per cent in the ordinary branch (after exclusion of single premiums from the ratio). In the industrial branch this is not entirely a good sign, since it results from the reduction in new business and reflects the fact that expenses are proportionately higher in the first year of a policy. We must expect an increase in the expense ratio for 1978 when new business will, we hope, return to a normal level.

Overseas Life Business

As I announced last year we have disposed of our life business in Canada and in South Africa. This is reflected in our accounts this year, where an exceptional transfer out of the fund is shown in the ordinary branch account. Part of the sale proceeds has been added to the additional reserve in the ordinary branch account to strengthen the reserves and for the eventual benefit of UK policyholders. The remainder

has been added to the surplus carried forward and will benefit future transfers to the profit and loss account. These transactions leave us with an active branch in Central Africa, an agency in Israel and closed funds in East Africa and Sri Lanka, with a total premium income equivalent to £550,000 and total funds of some £5.5 million.

Life Valuations and Bonuses

The valuations of the life liabilities have been made in general on the same bases as for 1976. The dispute with the agency force terminated before the end of the year but certain of the effects cannot be fully quantified until well into 1978. We have considered it desirable to proceed on a cautious basis and to hold additional reserves for this reason. This has probably reduced our surplus for this year. In so far as the surplus for 1977 has been underestimated, a correspondingly higher surplus may be expected for 1978.

In the ordinary branch the surplus for the year is £26.2 million, £4.9 million more than in 1976. In spite of the need for caution, we have therefore been able to make substantial increases in the reversionary bonuses on United Kingdom policies. These have been increased by 15p to £3.95 per £100 sum assured or annuity (£2p to £4.65 for pension business) for policies in force for less than five years and 25p to £4.50 (£0p to £5.40 for pension business) for those in force for five years or over. We have also increased the supplementary bonus on self-employed deferred annuities, which was introduced for the first time last year. The terminal bonus has been increased from 1 per cent of the sum assured and bonus (1.30 per cent for pension business) for each year that the policy has bonuses attaching to 1.15 per cent (1.50 per cent for pension business), excluding the first three years. This reflects the continuation of our policy of distributing to policyholders part of the unrealised capital gains that have resulted from higher stock market prices and increases in the value of property investments.

The bonuses declared for the overseas territories are similar to those declared for 1976.

In the industrial branch the surplus for the year was £22.6 million, £3.2 million more than in 1976. Increased reversionary bonuses have been declared for the policies that have been in force for the longer periods and the terminal bonuses have been increased by amounts that are roughly equivalent to the increase granted in the ordinary branch.

SHORT TERM BUSINESS

Results
Premium income (excluding MAT and subsidiary companies) amounted to £33.2 million, an increase of £4.2 million (15 per cent) over 1976. There was a world-wide underwriting loss of £3.0 million compared with the 1976 loss of £2.6 million, the comparative revenue class losses being:-

	1977	1976
Property	1.7	1.7
Motor	1.3	0.3
Liability	0.1	—
Other classes	0.2	0.2
Reinsurance treaties	0.3 (profit)	0.4
	3.0	2.6

Gross investment income amounted to £3.6 million compared with £3.2 million in 1976 giving a net trading surplus for the year almost unchanged at £0.35 million.

United Kingdom

Eighty seven per cent of our business was written in the UK. Premium growth at 15 per cent was down on the previous year (22 per cent) but it was satisfactory in the light of our agents' restrictive practices. The results, however, were again disappointing. In the motor account (44 per cent of the total premiums) the net underwriting loss amounted to £1.4 million due mainly to the poor claims experience in motor cycle business. The corrective measures taken in 1977 brought about a steady improvement in the claims ratio during the year but the relatively large amount of business written in the second half of the previous year produced a larger loss than in 1976. There is good evidence that there will be a significant improvement in motor cycle results in 1978.

The property account (43 per cent of the total premiums) consists mainly of householders' business and our claims experience on this continued to be poor in line with the market. The underwriting loss of £1.7 million was the same as in 1976.

Householders' business has, for a variety of reasons, been under increasing claims pressure in recent years and we have found it necessary to apply a rate increase in addition to other remedial measures. These will take some time to work through the account and to be fully reflected in the results.

Overseas

Our direct overseas interests (branches in Central Africa and Portugal and agencies in a few countries) contributed seven per cent of our premium income. The combined results showed a small underwriting profit and a trading profit of £0.2 million. The results of the Central Africa branch were particularly good and the management and staff did very well to achieve them in the difficult conditions in which they operate.

The run-off of our Canadian business continued satisfactorily. The small organisation we had maintained for this purpose was closed at the end of the year and the remaining run-off has been contracted out to another company.

Reinsurance Treaties

Business accepted under reinsurance treaties represented six per cent of our premium income. There was an underlying improvement in the results but the turnaround of £0.7 million was mainly due to a release of reserves arising from a change in the method of calculating earned premiums.

Marine, Aviation and Transport

The 1975 account was closed at the end of 1977 and showed a trading profit after taking credit for investment income. The open years' fund has been strengthened by a transfer from the closed year and a further transfer of £50,000 from the profit and loss account.

Subsidiary Companies

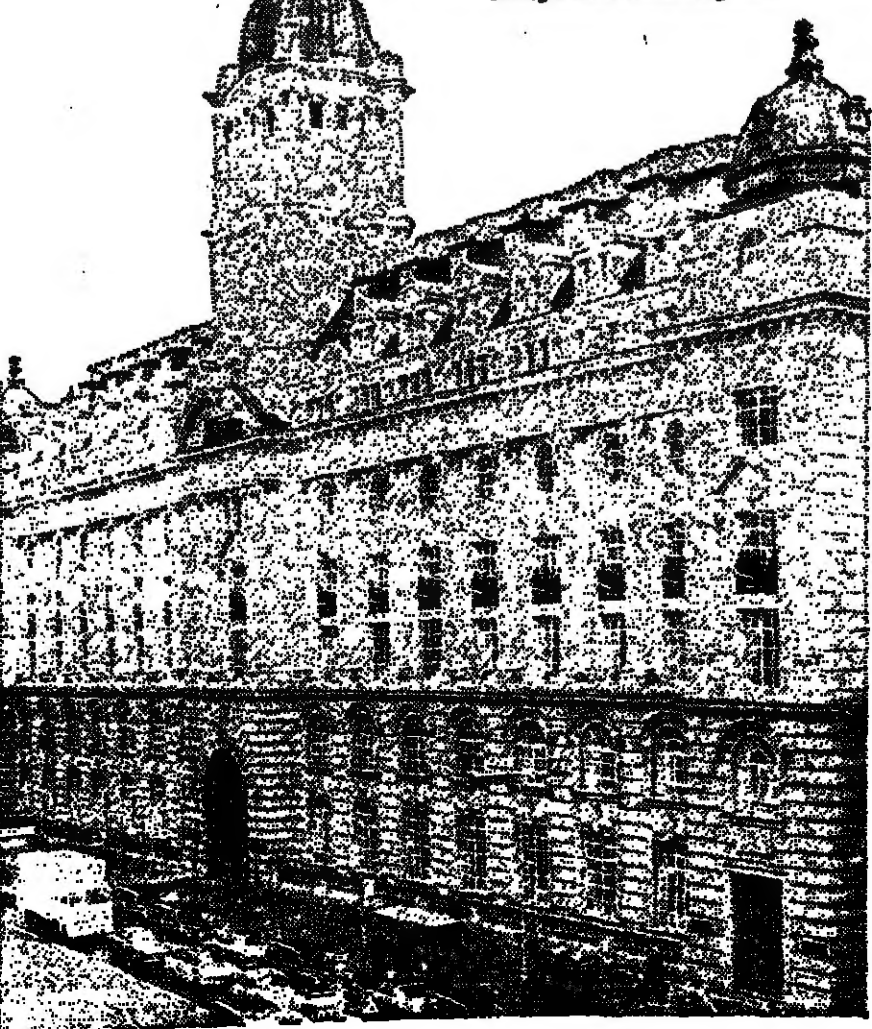
The combined premium income of our three subsidiary companies in Brazil, Portugal and the USA amounted to £17.6 million against £21.2 million in 1976. The decrease was due to conversion at a higher sterling rate and to pruning of unprofitable business in the US subsidiary.

'Monarca' in Brazil had another good year with a trading profit of £0.5 million. Provisional figures for the 'Portugal' indicate a deterioration in the results for the year and the outcome is likely to be a small trading loss.

In the 'Monarch of Ohio' there was a welcome reduction in the underwriting loss and the outcome for the year was a trading profit of £0.9 million. The results are still being adversely affected by the run-off of some of the cancelled 'pools and associations' contracts referred to in my last report.

The trading profit figures mentioned above are the sterling equivalent of the results in the companies' local accounts.

Chief Office, High Holborn and over 400 District Offices throughout the United Kingdom.



INVESTMENTS

Separate balance sheets are shown for the long-term, short-term and stockholders funds and the supplementary statement given in the published accounts shows the comparative market values and balance sheet values of the investments of each fund together with the gross income earned. Total gross investment income at £914 million showed an increase of £11 million over the previous year, £5 million attributable to gilt-edged stocks and £6 million to equity investment including real property.

At the year end short-term deposits in the United Kingdom amounted to £9 million compared with £19½ million the year before. Of such deposits £4½ million related to the long-term business and represented 0.5 per cent of the assets of the long-term funds.

During the year the gilt-edged portfolio was increased by over £45 million following the previous year's increase of some £28 million. Gross advances under house purchase mortgages totalled £12 million, with net lending amounting to £4½ million.

Net equity investment, mainly in United Kingdom shares, was again substantial and amounted to over £32 million. It will perhaps be of interest that of this figure £8½ million went directly into industrial and commercial companies raising new capital by means of rights issues, but the impression currently being fostered in some quarters that this is the only element of equity investment which serves a useful purpose must be dismissed. The buying of existing shares through stock markets provides the essential facility for the investor to realise his savings, whilst leaving the finances of companies undisturbed. If it were not for this facility, companies would be unable to raise the finance that they need.

The property portfolio showed little overall change for the year. Net acquisitions in the United Kingdom were unusually low at £12 million and were counterbalanced by the disposal of our South African properties in connection with the transfer of our former life business in that country. Currently the forward property investment programme involves some £17 million.

Aggregating the totals for the past three years, £100 million has been invested in gilt-edged, £98 million in equities and £18½ million in property.

The gross yields on the life funds were 10.14 per cent (1976-9.69) in the ordinary branch and 10.25 per cent (1976-9.74) in the industrial branch.

PROFIT AND LOSS ACCOUNT

The transfers from the long-term funds amount to £4,698,000 as against £3,956,000. There is also a transfer from the general branch account of £553,000 as against £567,000 and the transfer out to the marine, aviation and transport account has been reduced from £100,000 to £50,000.

Investment income on stockholders' funds for the year is £1,371,000. After allowing for other income, expenses and the control of expenses in relation to premium income extremely difficult. It is of utmost importance to the Nation as a whole and to our industry in particular that the Government should succeed in its aim of containing inflation, and true success in this endeavour must involve much more than a mere reduction of the rate to the region of ten per cent.

After the proposed increase in the dividend, the carry-forward has been increased to £4,177,000.

THE NEW STATE PENSION SCHEME

1978 is the year of the introduction of the long-advertised new state pension scheme. All employers with a pension scheme for their staff have had to decide whether to contract out of or to contract in to the new scheme. In the former case, and very often in the second case also, they have had to make extensive amendments to the rules of their scheme. This has involved those insurance companies, such as ours, who insure such schemes in a great deal of extra and unremunerative work. We have had to advise employers as to which decision is in their best interest and this is something that can only be decided scheme by scheme. The majority of our schemes are small ones and we have advised most of our policyholders to contract in. In the case of our own staff scheme, we have decided, after consultation with the trade unions representing the members, to contract out. It was a very finely balanced decision without, we consider, any marked advantage either way. During the last nine years we have made preparations to meet the changes proposed in connection with no fewer than three new national insurance schemes, two of them abortive. Even before the implementation of the latest, further amendments are being adumbrated. Whatever the merits of these amendments, and some are, at best, dubious, the primary requirement at present is for a period of quiet consolidation.

WILSON COMMITTEE

Your Company will of course be deeply interested in the conclusions reached by the Committee, and even more so in any changes of law or practice which may be proposed as a result. The insurance industry has given clear and full evidence to the Committee, drawing conclusions which we fully support.

Under the weight of overwhelming evidence to the contrary from all sides, the contention that Britain's poor performance

in terms of industrial development and re-equipment has been due to the failure of investing institutions to provide finance is now accepted to be false, except by those to whom it is a vital part of a political proposal for the control of institutional investment. In furtherance of this proposal it is still being suggested in some quarters that the growth of pension funds and life funds has been or will be such as to give them too powerful a position in the Nation's affairs. This argument ignores the fact that the funds concerned are not one vast conglomerate, but a very large number of independent organisations each seeking to employ its assets to the best effect for its beneficiaries. To replace this situation with one giving ultimate control of the whole to one central body of some sort would be a strange answer to the basic criticism of concentration of power, even were that criticism valid. Certainly there is no evidence to suggest that investing bodies within the public sector have adopted a level of economic responsibility superior to that of the private sector.

I have no doubt that our industry will be ready to discuss any problems whose existence the Committee demonstrates, to see whether solutions compatible with our duties towards our policyholders, staff, and stockholders are available.

CONSUMER PROTECTION

The large majority of our policyholders in the ordinary branch and virtually all of those with premium paying policies in the industrial branch have participating policies. That is to say, they share between them 90 per cent of the surplus of the branch as disclosed by the annual valuation, only 10 per cent going to stockholders. We are therefore, in common with most of the life assurance industry, concerned on behalf of our customers as well as our stockholders. The present interest in consumer protection therefore accords well with our philosophy. However, we have always taken the view that the individual policyholder should not, by asking for costly exceptional treatment or attention, reduce the return to his fellow customers. Much of the current consumer-related legislation is in the direction of giving increased rights to the individual at the expense of the corporation. Whether the ultimate cost falls upon the shareholder or the other consumers (and, in our case, the additional expense must largely be met from money which would otherwise have been allotted as bonuses to policyholders) we consider that there is a tendency, particularly within the European Economic Community, for legislation in this direction to go too far, so that the interests of the majority of policyholders are prejudiced by the need arising from such legislation to indulge the over-demanding wishes of the minority.

INFLATION AND INCOME CONTROL

Inflation is perhaps potentially more damaging to life assurance than to any other type of business, in that it diminishes confidence in long term saving and makes the control of expenses in relation to premium income extremely difficult. It is of utmost importance to the Nation as a whole and to our industry in particular that the Government should succeed in its aim of containing inflation, and true success in this endeavour must involve much more than a mere reduction of the rate to the region of ten per cent.

However, where Government policy to this end takes the form of restrictions on pay increases, we do wish that the rules were thought out in more detail and published in a clear and comprehensive form. The present ill-thought-out policies create particular difficulties for companies like ours where some of the staff are remunerated wholly or partly by commission.

One reason for this is that the various phases of the recent pay policy have all laid down certain maxima for pay increases and these have inevitably become, in the eyes of all concerned, an entitlement. Thus, our district agents, who are paid partly by salary and partly by commission, thought it appropriate last year to press a claim for a salary increase of the maximum amount permitted by the pay policy. In fact, because life policyholders need to take out larger policies year by year to offset the depreciating value of the currency and because premiums on non-life policies should be increased each year in line with inflation, the total earnings of district agents, reflecting the consequently increased commission payments, had on average already increased by more than twice the maximum allowed to be paid to employees on fixed salaries. Further, to grant the claim unconditionally would, in our view, have damaged the competitive position of the Company and reduced the value of policyholders' savings.

Whilst we have always had the maximum regard for good industrial relations and a working environment free of disputes, we felt on this occasion that the agents' demands were unreasonable and we therefore resisted the claim. However, in the climate of the expectation generated by the pay policy, our agents took various forms of restrictive practices which persisted for nearly six months in furtherance of their claim. One effect was the greatly reduced industrial branch new business written during the year. The loss of new premium income will reduce the growth in the value of your Company in future years but not to any serious extent.

A dispute of this nature must tend to strain relationships between field management and agents but we are confident that following the settlement achieved at the year end the vast majority of our staff now want to put the events of last year behind them and wish to restore the harmonious relationships that previously existed enabling everyone, together, to get on with the job of making up the ground which we lost last year. Our aim is to help and encourage them to do so.

TRIBUTE TO THE STAFF

The agents' industrial action caused additional work and inconvenience, as well, in some cases, as loss of pay to those members of the staff not involved. I should like to express my appreciation of the considerable additional effort which many of them contributed during the action and, most particularly, during the period at the beginning of this year when the arrears of outstanding work had to be cleared up, and also of their loyalty to the Company in a difficult period. I should also like to express my pleasure at the underlying goodwill between all members of staff which has facilitated, with very minor exceptions, the general return to normal working.

The Annual General Meeting of the Company will be held on May 24th at 12 noon at the Registered Office, High Holborn, London WC1V 7EB.

EXTRACTS FROM 1977 ACCOUNTS

	1977	(1976)
* New Life Premiums per annum	£21.7m	(£23.5m)
* New Life Sums Assured	£532m	(£597m)
* Life Premium Income	£130m	(£119m)
* Life Surplus allocated to policyholders	£42.3m	(£36.6m)
* Assets of Long Term business		
— Balance sheet value	£929m	(£862m)
— Market value	£1,366m	(£1,042m)
* General Branch premium income	£33.2m	(£29.0m)
* General Branch underwriting result	£3.0m loss	(£2.6m loss)
* General Branch trading result	£0.5m profit	(£0.5m profit)
* Assets of Short Term business		
— Balance sheet value	£61.0m	(£54.9m)
— Market value	£83.0m	(£66.2m)
* Profit and loss account income (net transfers plus investment income less taxation)	£5.6m	(£4.7m)
* Total assets of the Group increased by £73 million to £1,021 million		

Cover yourself with

Pearl
assurance

Pearl Assurance Co. Ltd.
Registered in England (1419C), Registered Office
High Holborn, London WC1V 7EB

6 times a week to Tripoli

7 times a week to Benghazi

Twice a week to Rome

that's

*Libya

1

Demand for seats on Libyan Arab Airlines goes on unabated, and the London-Libya service is no exception.

We don't like to say 'sorry' to intending passengers, so, we're doing the only practical thing—increasing our flights.

We are now flying 6 times a week to Tripoli, 7 to Benghazi and twice a week to Rome—a boost to our London service of nearly 30%!

And not only that. We're opening spacious new offices at 88 Piccadilly. Now you can book your flight and make onward reservations amid relaxed surroundings in the centre of town, overlooking Green Park.

Here is our new service from London:

To Tripoli: Mon, Tues, Wed, Thur, Fri, Sat.

To Benghazi: Sun, Mon, Tues, Wed, Thur, Fri, Sat.

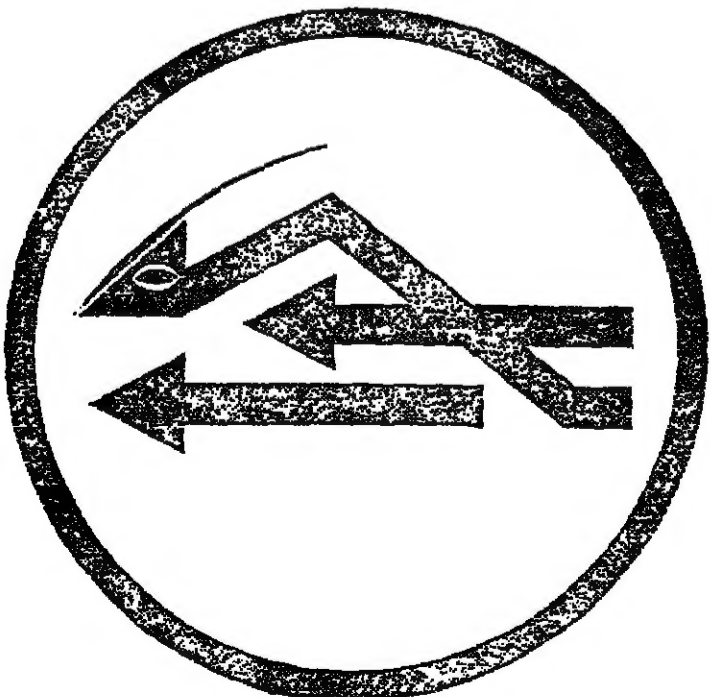
To Rome: Tues, Thur.

All departures are from London (Heathrow) and are conveniently timed in the early afternoon.



Please contact us at 88 Piccadilly, London W1V 9HD.

Reservations and enquiries: 01-499 1016/9.



انخطوط الاجوية العربية الليبية
LIBYAN ARAB AIRLINES

*SOCIALIST PEOPLE'S LIBYAN ARAB JAMAHIRIYA

FILM AND VIDEO

BY JOHN CHITTOCK

Video disc jockeying

FUTUROLOGY in the audio-visual business has dominated the minds of nearly everyone who has to make financial decisions in the industry. The past 15 years has witnessed great changes: once it was simple old industrial films; but the rise of audio-visual aids generally—and of video in particular—has extended the field of vision to the point when anything that moves or forms an optical image is fair game if it involves information, technology, education, promulgation or money.

Despite the changes, especially those of the past few years, the frustrating thing about this dramatic progress is that still no one really knows where it is leading. The promised videocassette revolution (inches (or centimetres) itself tantalisingly nearer—without actually arriving—way of avoiding it as the JVC VHS system and Sony's rival Betamax begin to add a new dimension of marketing power to the industry. But the potential of the video disc—which is to videocassettes what the audio disc is to tape—continues to confuse the issue.

The video disc has yet to arrive on a significant commercial scale, but this could start to happen at the end of the year when Philips and MCA test market their VLP system in the U.S. Meanwhile, as the video cassette gains ascendancy, no one seems sure any longer whether the two technologies will complement each other or fight it out to the death—with broadcast television, the commercial cinema and 16mm film becoming unwilling participants in the contest.

An attempt to shed a glimmer of light on this audio-visual scene comes later this week with publication of the results of a survey carried out by Screen Digest. A cross-section of its subscribers (who are mostly in the media industries) expect videocassettes to show exceptional growth during the next three years—with rental of recorders dominating in Britain. The reasonable view prevails that video discs will take longer to arrive, with

some im. players in Britain by the mid-1980s. One respondent in Nigeria puts the whole matter into perspective, however, by predicting exceptional growth there for flannel and magnetic boards.

In the U.S. video discs have been the specific subject of a survey carried out by the Society of Motion Picture and Television Engineers. The main reported conclusion of the preliminary findings is that the developers of video discs have vastly different ideas from the end users about how the technology will be used in industry. Apart from its entertainment potential, the video disc will provide an exceptionally convenient way of storing visual information—with almost instant access to any one of over 40,000 colour pictures. According to the SMPTE survey, potential users want so far—his answers left the door open for Sony to adopt someone else's video disc system, which would be a major reversal of Sony's usual style.

The U.K. has not been backward in seeing the potential for video discs. Although there have been British-developed systems abandoned on the way (including the world's first in 1928, from John Logie Baird), activity in the U.K. has centred on programming and entrepreneurial schemes.

Even if this accelerating journey down the audio-visual road begins to yield more questions than answers, there is a feeling of great excitement in the business. In response to the Screen Digest survey, optimism abounds. Most rapid growth predicted will be in the use of these media in training and education. There are other new opportunities so far unsurveyed, notably in the Third World—which must become a huge customer for audio-visual hardware and media. Britain has particularly well-developed connections here in supplying programmes, information and services—even though our greatest hardware export may turn out to be flannel boards. It is a general area of export potential and political influence that the British Government might do well to examine.

It seems probable that in the end the two technologies will survive side-by-side in affluent homes at least, with videocassette machines being used mainly for user-recording of TV programme and video discs as a relatively cheap source of pre-programmed material. Adding to the confusion in the meantime are the claims of varying credibility from up to 30 rival video disc systems. Although most experts now

believe that the Philips/MCA will be the winner, RCA and Thomson-CSF have attractive and non-compatible video disc systems. Of the others, two new entrants in the race cannot be lightly dismissed—Matsushita and IBM. The latter is a completely dark horse whose existence became known only last week.

Yet the video disc manufacturers do seem to agree that they must solve the conflict of standards produced by their rivalry—an agreement typified by their co-operation in the Video Disc Study Group of the Society of Motion Picture and Television Engineers. Even Sony's chairman, Mr. Akio Morita, admitted to a degree of open-mindedness when he was in London recently for the Beta-max launch. When I questioned him about Sony video disc plans—they have revealed none yet—his answers left the door open for Sony to adopt someone else's video disc system, which would be a major reversal of Sony's usual style.

The U.K. has not been backward in seeing the potential for video discs. Although there have been British-developed systems abandoned on the way (including the world's first in 1928, from John Logie Baird), activity in the U.K. has centred on programming and entrepreneurial schemes.

Even if this accelerating journey down the audio-visual road begins to yield more questions than answers, there is a feeling of great excitement in the business. In response to the Screen Digest survey, optimism abounds. Most rapid growth predicted will be in the use of these media in training and education. There are other new opportunities so far unsurveyed, notably in the Third World—which must become a huge customer for audio-visual hardware and media. Britain has particularly well-developed connections here in supplying programmes, information and services—even though our greatest hardware export may turn out to be flannel boards. It is a general area of export potential and political influence that the British Government might do well to examine.

It seems probable that in the end the two technologies will survive side-by-side in affluent homes at least, with videocassette machines being used mainly for user-recording of TV programme and video discs as a relatively cheap source of pre-programmed material. Adding to the confusion in the meantime are the claims of varying credibility from up to 30 rival video disc systems. Although most experts now

Information

The video disc clearly has great possibilities if integrated into an information chain. Hospitals could store x-rays in a fraction of the space currently occupied by film, and in an ideal world could yield instant access via closed circuit television to any point in the building.

In the popular role of video discs—replaying programmes on a TV screen—the medium offers almost infinite life compared with videocassettes, occupies negligible shelf space, and promises to cost anything from one quarter to one tenth the price of the pre-programmed videocassettes.

It seems probable that in the end the two technologies will survive side-by-side in affluent homes at least, with videocassette machines being used mainly for user-recording of TV programme and video discs as a relatively cheap source of pre-programmed material.

Adding to the confusion in the meantime are the claims of varying credibility from up to 30 rival video disc systems. Although most experts now

APPOINTMENTS

Reed International executive changes

REED GROUP LIMITED, the European paper and packaging division of Reed International, has made the following senior executive appointments.

Mr. C. B. Warrington, deputy chairman of the paper division and a director of Reed Group, has become deputy chairman of the Board of Reed Group. Mr. A. R. Chalk, managing director of Spicers, Mr. E. Doerbar, chairman and chief executive of Spicer-Cowan, and Mr. J. Hubbard, managing director of Reed Medway Division, have joined the Reed Group Board.

Mr. S. T. Graham has been elected chairman of the MIDLAND BANK TRUST COMPANY in succession to Lord Helsby, who has retired from the Board. Mr. J. Cox has become deputy chairman. Mr. Graham is a director and a chief general manager of Midland Bank and Mr. Cox is a senior general manager, Midland Bank.

Mr. David Simpson has been appointed chief executive of HERITABLE INDUSTRIAL HOLDINGS, a subsidiary of the Heritable and General Investment Bank. Mr. Simpson was until recently director of manufacturing Leyland Cars and managing director designate of Pressed Steel Fisher.

Mr. J. S. Cumming, Mr. G. G. L. de Geer, Mr. R. A. Hambro, Lord Irwin, Mr. M. V. St. Giles, Mr. I. L. Schmiegelow and Mr. A. F. Steel have been appointed directors of HAMBROS BANK.

Dr. Gordon Taylor is to be the next chairman of the London Transport Committee of the GREATER LONDON COUNCIL. He will succeed Mr. Harold Mole, who becomes chairman of the Council on May 16.

Mr. John Baxter has been appointed company chief engineer of TRIPLEX SAFETY GLASS. He was previously with Courtauld.

Mr. John C. Hayward has been appointed to the Board of GARTON ENGINEERING and continues as company secretary.

Mr. Derek Nightingale has been elected president of the BRITISH TEXTILE EMPLOYERS' ASSOCIATION in succession to Mr. Edmund Garside. Mr. James Easton has become treasurer in place of Mr. Fred Dunkerley.

Mr. G. R. Jefferson, chairman and chief executive of British Aerospace Dynamics Grp, has been elected a Fellow of the City and Guilds of London Institute, British Institute of Management, and Council of Engineering Institutions.

Mr. Michael Ness has joined the Board of GT MANAGEMENT PANY. Mr. Reginald Rees, an

executive director, retires on June 30. Mr. John L. Robinson has joined LCP HOLDINGS GROUP as group financial controller.

Dr. M. S. Wooding is to become chairman of CHARLES EARLY AND MARSHOTT (WITNEY) from July 12 on the retirement of Mr. A. D. Hopkins.

Mr. S. T. Graham has been elected chairman of the MIDLAND BANK TRUST COMPANY in succession to Lord Helsby, who has retired from the Board. Mr. J. Cox has become deputy chairman. Mr. Graham is a director and a chief general manager of Midland Bank and Mr. Cox is a senior general manager, Midland Bank.

Mr. J. S. Cumming, Mr. G. G. L. de Geer, Mr. R. A. Hambro, Lord Irwin, Mr. M. V. St. Giles, Mr. I. L. Schmiegelow and Mr. A. F. Steel have been appointed directors of HAMBROS BANK.

Mr. David Simpson has been appointed chief executive of HERITABLE INDUSTRIAL HOLDINGS, a subsidiary of the Heritable and General Investment Bank. Mr. Simpson was until recently director of manufacturing Leyland Cars and managing director designate of Pressed Steel Fisher.

Mr. J. S. Cumming, Mr. G. G. L. de Geer, Mr. R. A. Hambro, Lord Irwin, Mr. M. V. St. Giles, Mr. I. L. Schmiegelow and Mr. A. F. Steel have been appointed directors of HAMBROS BANK.

Dr. Gordon Taylor is to be the next chairman of the London Transport Committee of the GREATER LONDON COUNCIL. He will succeed Mr. Harold Mole, who becomes chairman of the Council on May 16.

Mr. John Baxter has been appointed company chief engineer of TRIPLEX SAFETY GLASS. He was previously with Courtauld.

Mr. John C. Hayward has been appointed to the Board of GARTON ENGINEERING and continues as company secretary.

Mr. Derek Nightingale has been elected president of the BRITISH TEXTILE EMPLOYERS' ASSOCIATION in succession to Mr. Edmund Garside. Mr. James Easton has become treasurer in place of Mr. Fred Dunkerley.

Mr. G. R. Jefferson, chairman and chief executive of British Aerospace Dynamics Grp, has been elected a Fellow of the City and Guilds of London Institute, British Institute of Management, and Council of Engineering Institutions.

Mr. Michael Ness has joined the Board of GT MANAGEMENT PANY. Mr. Reginald Rees, an

Growth? They've had six consecutive years of improved earnings and sales.

Earnings? \$5.52 per share—up 22% over last year.

Yield? Current dividend rate is \$1.30 per year.

Take a look at the new Allis-Chalmers.

Return? It's up to 12.9% on shareholders' equity.

Diversity? They have four major machinery businesses to balance earnings.

Results for the year ending Dec. 31:	1971	1972	1973	1974	1975	1976	1977
Income (millions)	\$ 5.2	\$ 8.7	\$ 16.3	\$ 22.1	\$ 29.4	\$ 58.7	\$ 67.0
Sales (millions)	\$ 889	\$ 960	\$1,166	\$1,262	\$1,443	\$1,519	\$1,537.7
Earnings per share	\$0.42	\$0.70	\$ 1.30	\$ 1.77	\$ 2.33	\$ 4.51	\$ 5.52
Dividends paid (per share)	\$0.20	\$0.20	\$0.216	\$ 0.26	\$ 0.26	\$ 0.50	\$ 1.00

The world needs more of what Allis-Chalmers makes.

For a copy of 1977 Annual Report, available April 1, write Dept. 3202, Allis-Chalmers Corporation, Milwaukee, WI 53201.

Name _____

Address _____

City _____

State _____ Zip _____

هكذا من الأعمال

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Title	Venue
May 7-10 Incentive Marketing and Sales Promotion Exbn. and Conference	Metropole Centre, Brighton
May 8-10 Engineering Teaching Equipment Manuf. Assoc. Exbn.	West Centre Hotel, W.1
May 8-12 Electronic Test and Measurement Equipment Exbn.	U.S. Trade Center Harrogate
May 10-12 Int. Welding Engineering Exbn. and Conf.	Olympia
May 10-12 International Decasting Exhibition	Wembley Conf. Centre
May 11-12 European Computing Congress and Exbn.	Alexandra Palace
May 11-12 Meat Trades Fair	Nat. Exbn. Centre, B'ham
May 11-12 Int. Domestic Electrical Appliances Trade Fair	Belle Vue, Manchester
May 11-12 Materials Handling and Factory Equipment Exbn.	Olympia
May 11-12 Specbuild (building products) Conf. and Exbn.	Connaught Rooms, W.C.1
May 11-12 Int. Conf. and Exbn. European Cellulose and Paper Assoc.	Horticultural Halls, S.W.1
May 24 Business to Business Exhibition	Shepton Mallet
May 24-25 Royal Bath and West Show	Olympia
May 24-25 British Hospitals Exhibition	

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Title	Venue
May 6-11 International Book Festival	Paris
May 8-11 Offshore Technology Conf. and Exbn.	Houston, Texas
May 8-12 Int. Technology Exchange Fair	Utrecht
May 9-11 Compec Europe	Brussels
May 9-12 Int. Surface Treatment and Finishing Exbn.	Paris
May 13-20 Woodworking Machine Exhibition	Milan
May 16-20 Welding Fair	Zagreb
May 19-27 Public Works Exhibition	Paris
May 22-26 Int. Industrial Equipment Exbn.	Brussels
May 28-June 1 Israel Technology Week	Jerusalem
June 12-16 World Congress on Automatic Control	Helsinki
June 13-21 Int. Rubber and Plastics Conf. and Exbn.	Paris
June 15-18 Solar Energy Exbn. and Congress	Genoa

BUSINESS AND MANAGEMENT CONFERENCES

Title	Venue
May 4 Westminster Chamber of Commerce: First Annual Conf.	London Hilton, W.1
May 4 British Institute of Management: Management of Product Design and Innovation	Royal Lancaster Hotel, W.2
May 4 National Chamber of Trade: Annual Conference	Llandudno
May 4-5 Keith Shipton Developments: Risk Management in Practice	Tower Hotel, E.1
May 4-5 Financial Times: The 1978 Euromarkets Conference	Royal Lancaster Hotel, W.2
May 4-5 The Industrial Society: Profit Sharing—Employee Share Ownership	Quaglin's, S.W.1
May 4-5 AGB Conference Services: Executive Stress	Inst. of Directors, S.W.1
May 4-5 Oyez: International Transfer Pricing Policies	London Press Centre, E.C.4
May 4-5 Zinc Development Association: Die Casting Conference	London Hilton, W.1
May 4-5 Shirley Institute: Textile Industry—protecting the environment, producer and consumer	Manchester
May 4-5 British Association for Commercial and Industrial Education: Job Analysis	BACIE Train. Centre, London
May 4-5 Oyez: Tax and Property	Hotel Inter-Continental, W.1
May 4-5 Advanced Management Research (AMR): Management Skills for Women	Churchill Hotel, W.1
May 4-5 Kepner Tregoe: Decision Making for Senior Management	Perry Hall Hotel, Bromsgrove
May 4-5 Financial Times: The North Sea and its Economic Impact	Grosvenor House, W.1
May 4-5 European Study Conferences: The Finance Bill 1978	Royal Lancaster Hotel, W.2
May 4-5 Inst. of International Licensing Practitioners: Nuts and bolts of technology transfer	Imperial College, S.W.7
May 4-5 British Plastics Federation: Plastics Component Engineering	RAPRA, Salop
May 4-5 AMR International: Project Financing	Portman Hotel, W.1
May 4-5 Oyez: Successful accomplishment of giant projects	Hilton Hotel, W.1
May 4-5 CAM Foundation: Media Solutions to Marketing Problems	48, St. Martin's Lane, W.C.2
May 4-5 Oyez: Annual conference for Landowners, Farmers, and their Advisers on Tax and Financial Planning	Savoy, W.C.2
May 4-5 Westminster Chamber of Commerce: Seminar on Exporting	Café Royal, W.1
May 4-5 Marchmont: International Tax Planning Conf.	Barbados
May 4-5 Imperial College: International Finance	London, S.W.7
May 4-5 British Institute of Management: Cost savings through materials handling	Tickled Trout Hotel, Preston
May 4-5 Anthony Skinner Management: Improving stock control	Piccadilly Hotel, W.1
May 4-5 Institutes of Chemical Engineers and Civil Engineers: Successful completion of overseas projects	UMIST, Manchester
May 4-5 European Study Conferences: Double Taxation—Taking advantage of international agreements	Old Government House Hotel, Guernsey

Parliament this week

TO-DAY

COMMONS—Motion to refer to Committee of Privileges the publication of proceedings of the House. Debate on enlargement of EEC. Motion on EEC document on commercial agents.

LORDS—Debate on family support and perinatal mortality.

SELECT COMMITTEES—Opposed Private Bill Committee on the Sheffield General Cemetery Bill, (2 p.m. Room 5).

TO-MORROW

COMMONS—Wales Bill, report stage.

LORDS—European Assembly Elections Bill, third reading. Scotland Bill, committee. Medicines (Radioactive Substances) Order.

SELECT COMMITTEES—Nationalised Industries, Subcommittee B. Subject: Reorganisation of electricity supply industry. Witness: Mr. A. Wedgwood Benn, Energy Secretary. (10.45 a.m. Room 8). Nationalised Industries, Subcommittee C. Subject: Independent Broadcasting Authority. Witness: Institute for Practitioners of Advertising, Association of Broadcasting Staff. (4 p.m. Room 8). Unopposed Bills Committee on London Transport Bill. (4 p.m. Room 8).

Parliamentary Commissioner for Administration. Subject: Review of access and jurisdiction. Witnesses: Justice, 5 p.m. Room 7). Race Relations and Immigration. Subject: Effects of EEC membership on race relations and immigration. Witnesses: Officials of the Home Office. (5.30 p.m. Room 5).

THURSDAY

COMMONS—Debate on Rhodesia. Motion on Milk (GB) (Amend) Order.

LORDS—Scotland Bill, committee.

SELECT COMMITTEES—Science and Technology, Technological Innovation Subcommittee. Subject: Transverse flux induction. Witnesses: Alcan Ltd. (4.30 p.m. Room 15).

FRIDAY

COMMONS—Private Members' Bills.

LORDS—Solomon Islands Bill, committee. Protection of Children Bill, second reading. Medical Bill, Commons amendments. Debate on Community Land Act.

We deliver.

A new International Branch at 17 Hanover Sq., London.



Frank Dunphy

This extension of our International network will be of particular value to our customers requiring a faster service in Central London and is another stage in the Midland Bank's plan to provide international banking services where they are required.

The new International Branch is led by Manager Frank Dunphy and his experienced team who, in addition to normal services, will provide advice and consultancy on international trade and finance.

Contact Frank Dunphy at P.O. Box 2 DB, 17 Hanover Square, London, W1A 2DB. Telephone: 01-629 8884. Telex: 298751. TEST US.

We deliver.



Midland Bank International

Midland Bank Limited, International Division, 60 Gracechurch Street, London EC3P 3BN. Tel: 01-606 9944.



To help fulfill the financing needs of a company like International Harvester, a man must be a true global manager.

His banker must be the same.



Frank R. Milnor, Vice-President and Treasurer, International Harvester Company.

William D. Baird, Jr., Vice-President, Chemical Bank. Photographed in Florida crop beds prepared by International 1086 tractor.

Since 1851, International Harvester has been a vital force in world markets. Today, with new growth opportunities overseas, the company has re-focused on the international scene. To help direct the financing and financial services required, Vice-President and Treasurer Frank Milnor has to be as multinational minded as his company. So has his Chemical banker, Denny Baird. International Harvester employs many financial institutions. But the International Harvester-

Chemical Bank relationship has been buttressed by the fact that both enjoy a strong physical presence throughout the world. So when Milnor and his team saw an overseas need, Baird and his team could provide quick response. With financing for International Harvester's exports to Iran, Colombia and Venezuela. With lines of credit for International Harvester's subsidiaries in Canada and the U.K. And with foreign exchange assistance out of Chemical Bank's Zurich office. At the same time, U.S. needs

haven't been neglected. Recently, competitive pricing and fast turnaround have helped Baird furnish a multimillion dollar financing package for the International Harvester Credit Corporation.

While theirs is a professional relationship, Milnor and Baird will tell you that it's also personal and rewarding. That's what usually happens when corporate officers get together with Chemical bankers. And what results is bottom line benefits for both the company and the bank.

The difference in money is people. **CHEMICAL BANK**

Chemical Bank House, 180 Strand, London WC2R 1ET Tel: 379 7474 Representative Offices: Scottish Provident House, 1-2 Waterloo Street, Birmingham - Charlotte House, 17 Charlotte Square, Edinburgh. Main office New York, N.Y. 10038. Bahrain, Beirut, Birmingham, Bogota, Brussels, Buenos Aires, Cairo, Caracas, Channel Islands, Chicago, Dubai, Edinburgh, Frankfurt, Hong Kong, Jakarta, London, Madrid, Manila, Mexico City, Milan, Morocco, Nassau, Paris, Rio de Janeiro, Rome, San Francisco, Sao Paulo, Singapore, Sydney, Taipei, Tehran, Tokyo, Toronto, Vienna, Zurich.

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

Conveying cleanly round the bend

MANY of the tracking problems that can occur when multiple lines of products are being conveyed, around bends can be eliminated with a new design of powered bend which can be used on extremely tight radii.

Associated Conveyors (Torvalle Group) points out that bad tracking of bend unit belts will produce wrinkles in the belt fabric and result in jerky operation. The result is that separate lines can converge, upset unstable products and cause major production holdups.

The product is designed to cope with bends of between 15 degrees and 180 degrees with an internal radius of as little as 50 mm. or as much as 1000 mm. Belt widths from 100 to 1800

mm. are handled. The secret of the bend is a drive system which employs a chain on the outside of the belt. This eliminates the requirement for driven rollers which sometimes suffer from traction problems. Thus, the new unit can incorporate a variety of terminal roller sizes or even knife edge transfers.

Associated is claiming that the new product goes a long way towards eliminating maintenance problems caused by belt wear with a consequent increase in uptime for the equipment. Further details of the powered bend series from Associated Conveyors, Torvalle Industrial Estate, Pembroke, Leominster, Herefordshire HR6 9LA, 06447 282.

PACKAGING

Colourful cartons from new plant

BOWATER CONTAINERS has opened a new £2m. corrugated board plant which has just been installed at the company's Newport, Gwent, factory.

It houses a Simon Rengo computer-controlled continuous running corrugator and flow line system, and the company intends eventually to increase output by 40 per cent.

According to Bowater, the new unit is the most advanced in the world and the company will now be able to produce a full range of single and double wall corrugated board containers to a much higher specification, for transit and for presentation packaging of consumer goods such as electrical appliances, household goods, food and toys, as well as many industrial products.

In addition to increasing throughput, the new installation has also opened up a fresh marketing opportunity for high

quality colour printed containers. Normally it is necessary to laminate litho printed paper on to corrugated board—a time-consuming operation involving quite a high degree of waste.

On the new corrugator, however, pre-printed liners in up to six colours can be fed directly into the board-making process.

Bowater's Newport factory has a work force of 350 and is one of the company's nine major manufacturing plants scattered throughout the U.K., supplying the packaging needs of local industry. Introduction of the new investment plans led to setting up a joint consultative committee and negotiation of a new agreement for operating the plant with local trade union representatives. Supervisors and shop stewards visited Italy and Japan to see similar installations in operation.

ROBIN REEVES.

SAFETY AND SECURITY



Protects the face

A SIMPLE and effective answer to safety for operators spraying two-pack paints, is offered by Safety Products, Redhill.

A face mask, called the Clearway Air Fed Vizor, comprises a clear vizor mounted on adjustable headband with soft, permeable foam mouldings which seal the vizor against the wearer's forehead, chin and sides of the face,

to accommodate, where necessary, spectacles, safety glasses and beards.

A diffuser inside the base of the mask admits continuous air, which can escape through the seals and small gaps where the mask does not conform exactly to facial contours. The user's face is swept with a continuous stream of clean air which stops contaminants from entering, and prevents condensation. Air is provided from a conventional spray shop compressed air supply equipped with the necessary filtration equipment.

More on 01-639 9171.

Controls the speed

SAFETY STOPPING devices are the principal features of a pneumatically powered grinder introduced by the Tool Division of Consolidated Pneumatic Tool Company, Aberdeen.

The operator is protected by an overspeed prevention device which is designed to cut off the power supply should overspeeding occur. Once the CP "safe-stop" has been operated the grinder cannot be re-started or the stopping device by-passed in any way, ensuring that the tool is taken out of service until the fault is traced and properly rectified.

The tool is supplied in both horizontal and angle versions and designed for use with standard abrasive wheels, cut-off discs, sanders and wire brushes both versions are available with 3 hp. or 4 hp. motors which are of the newly developed unitised type able to be removed intact for servicing.

More on 01-870 7321.

A warning to all

THE OBVIOUS uses of sirens as fire and intruder alarms have been extended with many other applications throughout industry and the domestic field. Siren devices can be fitted to the rear of lorries, buses, earthmoving equipment and similar heavy vehicles to give a sound warning for safe reversing. Other examples are fault alarms on chemical and engineering process plant, and as an effective anti-mugging device.

An omnidirectional electronic siren capable of producing a penetrating 101 dB(A) alarm signal at 1 metre, but with an average power consumption of less than 1.2 watts is the Waller.

COMPUTING

New force in point of sale

AGGRESSIVELY expanding its financial and business market penetration, Chubb Electronics has taken under its wing, through its Gross Cash Registers acquisition, two types of point of sale equipment made in the U.S., which it is promoting throughout the European market.

Despite the acute competition in this particular area of business electronics—from IBM, NCR, ICL and several other well-known names—the company appears confident that the equipment, because of its high reliability record from the 25,000 terminals already installed in the U.S. by the maker, Datatrol, will win prompt acceptance.

It quotes a mean time between failures of 28 months for non-print terminals and one of 11.6 months for printing terminals on a one-user population of 580 units.

Another point advanced is the simplicity of the devices which makes operator retraining very easy.

Offered are the CR1 for large stores and the CR3, which is a

small, cassette-loaded off-line unit. Based on a Data General Eclipse, this unit can run a very large network, and, Chubb says, is so low in cost that for a 600 terminal array in eight branches, the charge comes to little more than if the stores were equipped throughout with the equivalent number of electronic cash registers.

CR3 is a compact unit like an electronic cash register, but with cassette data capture and ability to handle up to several hundred data entry sequences.

This means that the untutored operator can select an entry sequence for any particular result required by punching the appropriate code and be guided through the required key strokes by the equipment. So verification procedures pose no problems and the machine can be set to calculate tax and discount as needed.

More from Gross Cash Registers (Chubb Group), Crowhurst Road, Hollingbury, Brighton, East Sussex BN1 8AQ, 0273 506241.

RETAILING

Speeds work of cashiers

PROGRAMMABLE cash register L35 introduced by Sweda International can be programmed from the keyboard and also has extensive analysis ability.

Versions range from a machine with 16 totals that can accommodate five cashier activities, to the model D which can handle 80 departmental totals and can hold up to 79 preset prices.

These preset prices can be recalled at the touch of a button and at each depression the item is automatically recorded as a sale and the amount is added to the appropriate departmental analysis total. An item counter is incorporated.

Two illuminated "green on 3090).

black" displays are provided, clearly showing each transaction to both customer and cashier. The rear display can be moved to the side of the register if desired. Errors are easily corrected as they are keyed. Sales details are also printed on a dual mechanism printer, for customer receipt and journal roll.

Tax and discount rates can be programmed in through the keyboard (for items or complete transactions) and payment modes can be cash, cheque, charge or account. Change computation is automatic.

More from 37 Goswell Road, London EC1M 7AL (01-253 3090).

CATERING

Cuts cost of tea-making

WITH ENERGY conservation in mind, it is good sense to use an existing steam supply for bulk or individual tea making, rather than more expensive heating media, which premise has led to the introduction of Calmar's SL water boiler.

Instant, on-tap supply of fresh boiling water can be provided wherever steam or high temperature hot water is available in factories, canteens, hospitals and ship's galleys. No fuel is used unless boiling water

is drawn off, a feature which not only saves energy but also reduces condensation and damage to decorations when working in a confined area.

A safety factor of the machine is the concealing of standard pipe connections, eliminating the risk of burns from exposed steam pipework. It is sleekly compact, can be mounted on wall brackets, or fitted to take up minimum counter space.

More from the company at Lupton Avenue, Leeds LS9 7DD, (0532 496881).

ELECTRONICS

Good sound costs less

CONVINCED THAT the market is now right for the introduction of a new range of high-quality tape cassettes specially designed for the domestic user, SM United Kingdom has launched the Scotch Master series.

Simply designated I, II, and III, they can be used on tape decks with the bias switch (if available) set for normal or ferric oxide tape, for chromium dioxide tape, or for ferrichrome tape, respectively.

The magnetic qualities of the formulation on the tapes have been specially developed to give optimum output with Japanese bias settings to meet the demand at the top end of the market, where 30 per cent of the equipment is Japanese, although they will give improved performance on most machines.

The cassette shell itself has also been re-designed to minimise wow and flutter, and improve tape tracking and winding.

Total U.K. blank cassette market was around 30m. last year and is increasing. This year one-in-five cassettes being sold are in the high-quality range—the new Scotch tapes will be competing in this field, but with a price and performance advantage.

An independent audio equipment testing laboratory (Angus McKenzie Facilities) reports: "the tapes gave good overall performances under domestic conditions, and can be classed among the leading cassette tapes available to-day."

It is understood that the retail price for the C90 versions will be around £2, which should give them an edge over the competition.

Boosts the night image

MULLARD has developed a high sensitivity proximity image intensifier which weighs under 100 grammes, is 43 mm. in diameter and only 30 mm. long. An important application will be in night vision goggles and in other devices where low weight and small size are important.

Known as the XX1410, the device operates from a level of illumination below that of starlight (one ten thousandth of one lux) and has a luminance gain of between 7,500 and 15,000. Automatic gain control maintains a constant level of three candela per square metre on the screen.

The unit consists of a fibre optic input window on the rear of which is deposited a low noise, high sensitivity photocathode. A micro-channel plate multiplies the electrons from the photocathode which are then focused on to the P20 phosphor screen of a fibre-optic image inverter to form a bright image.

Encapsulated in a white plastic body, the unit has its own AC/DC converter and takes power from a 2.7 volt supply.

More from Mullard House, Torrington Place, London WC1E 7HD (01-850 8633).

TELEVISION

Low cost long cable video

AVAILABLE in this country from J. O. Grant Taylor of Potters Bar are Grundig terminal units that enable video signals to be set over pair lines—a telephone cable pair for example—instead of the more expensive conventional coaxial variety.

Impedance matching and the necessary frequency response and group delay correction are carried out using the LSV 72 balancing amplifier at the camera end of the link, with the LSV 72 correction amplifier at the receiving end.

The balancing amplifier takes

a one volt composite video signal from a 75 ohm coaxial input and delivers a balanced two volt peak-to-peak output to the two wire line. The correction unit is a low noise amplifier with sufficient gain to compensate for line loss and it incorporates adjustable frequency and phase correction networks to permit restoration of picture quality.

Television signals can be sent over 1.5 km with a received picture resolution of 400 lines per picture width. Up to 4.5 km becomes possible with two intermediate amplifiers.

More on Potters Bar 42223.

COMMUNICATIONS

Phone link for data users

VOICE digitising equipment made by Time and Space Processing Inc. of California is being made available in the U.K. by Cole Electronics of Croydon.

Purpose is to transmit high grade voice signals over a 2400 bits/sec. synchronous data channel. According to the company savings of many thousands of pounds a year can be made by users contemplating the purchase of an extended leased line over an extended distance if a suitable means is used of

combining voice and data signals over a common route.

Cole states that although units have existed for some time that will perform this function, user objection to the speech quality has prevented large scale introduction.

The T and SP unit does not suffer from "Mickey Mouse" speech problems and speaker identification is guaranteed. More from the company at Lansdown Road, Croydon CR9 2BB (01-686 4411).

MAINTENANCE

Improved sweeper

THE LATEST development of the Roadmaster 1600 mechanical sweeper, first introduced by Blaw Knox some eight years ago, is the Mk. IV version, designed especially for municipal street cleaning duties.

Significant changes are in the design of the operator's cab and the brush system: there is greater headroom and legroom

and three hydraulically driven brushes with the two side brushes mounted in a new position, set close to the main brush, improve sweeping performance.

The new design, and the smaller Pathmaster 42, will be shown at Expomat in Paris, May 19-27. More from the company at Short's Way, Rochester, Kent, SE24 4JAL.

PROCESSES

Plastics kept dry

MANUFACTURERS can pre-dry plastics materials prior to processing with an economically priced, portable drier just on the market from Regis Machinery (Sussex) Richmond Road, Bognor Regis, 02433 25661. The device called the RS Portodrier, is self-contained,

consists of a single-phase, electric motor-driven fan and thermostatically controlled heating element and weighs only 8kg. It can be fitted to circular or rectangular hopper covers of the smallest extruders or injection moulding machines, and one drier can serve several machines.

FISCAMBI S.p.A.

(Established in 1947)

SUBSIDIARY COMPANIES

FISCAMBI S.p.A.

Paid-up capital L.3 000 000 000
Milano-Piazza Diaz 7 (Italy)

FISCAMBI IMMOBILIARE S.p.A.

Paid-up capital L. 2 500 000 000
Milano-Piazza Diaz 7 (Italy)

FISCAMBI LEASING S.p.A.

Paid-up capital L. 2 500 000 000
Milano-Piazza Diaz 7 (Italy)

GES.I. GENOVESE SOCIETA IMMOBILIARE S.p.A.

Paid-up capital L. 500 000 000
Pavia-Strada Nuova 61 (Italy)

DREIECK-IMMOBIL-UND FINANZ AG

Paid-up capital S.F. 6 000 000
Chur-Grabenstrasse 15 (Switzerland)

DREIECK LEASING S.A.

Paid-up capital S.F. 6 000 000
Lusane-7, Chemin des Charmettes (Switzerland)

FISCAMBI HOLDING S.A.

Capital 9 10 000 000
Paid-in 90%
Luxembourg-37, rue Notre-Dame (Luxembourg)

	1976	1977
	US\$	US\$
	millions	millions
Consolidated Assets	181	202
Consolidated stock capital and reserves	23	26
Long term loans	53	67
Consolidated Income	29	40
Net Profit after taxes	1.8	2.0



Sanderson ROUGH TERRAIN FORKLIFTS

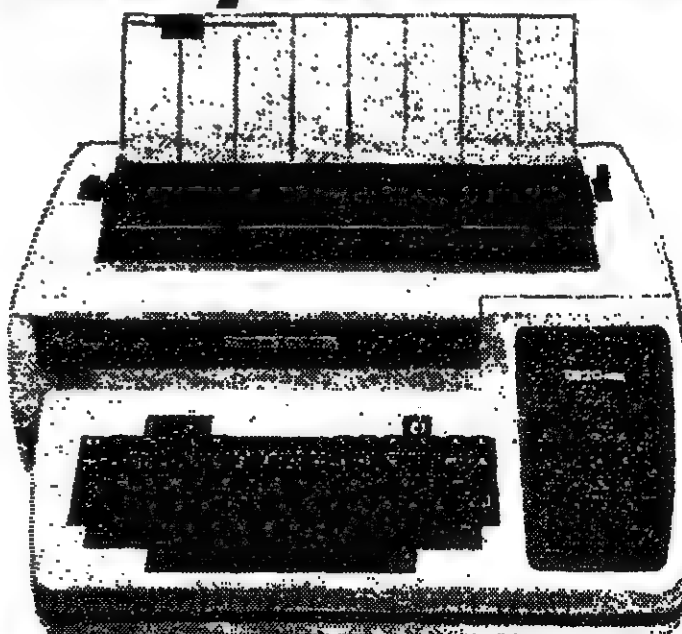
Two or four wheel drive "go anywhere" materials handling vehicles. Cut down on wasted time and materials handling with a reliable British made Forktruck from Sanderson. A great free enterprise Company

Sanderson (Forklifts) Limited
Croft, Near Skegness, Lincolnshire,
Tel: Wainfleet 252 Telex 377003

Kerridge

The Master Builders

The New Adler Compact can take over your entire invoicing.



What can it do in its spare time?

The new multi-purpose TA20 Compact is unique — an invoicing machine and electronic typewriter with computer capacity. It makes light work of any invoicing problems, calculating, tabulating and printing at high speed and producing VAT totals and product sales figures, automatically.

But when it's finished this task, it doesn't stop work. You can use it as an advanced single element electronic typewriter with automatic paper feed and variable pitch for top quality correspondence. Or automatically turn out hundreds of circulars, or as a fast programmable printing calculator or make out cheques and produce statements.

The cost of this remarkable machine is just £2,900 complete — and that includes any one of the standard invoicing programs with over 100 variations for you to choose from.

Send the coupon for full information on the Compact and the name of your nearest Adler dealer who will be delighted to arrange a demonstration.

Adler Business Computers Ltd,
1401/154 Borough High Street
London SE1 1LH Tel: 01-407 3191

Please send me full information on the new Adler TA20 Compact and the name of my nearest dealer.

Name _____

Company _____

Address _____

Tel: _____



Works like a typewriter acts like a computer.
Adler Business Computers
The ABC Group of companies

The hazards of employee reports

Employee Reports, by Anthony Hilton. Woodhead-Faulkner, £12.50, 113 pages, plus 72 pages of plates.

THERE is a cynical saying that companies only try to communicate their results to their employees when profits are bad. A seasoned trade unionist quoted in Anthony Hilton's book remarked pithily: "I have yet to meet a boss who wasn't going broke when it came to the annual wage round." The problem with reporting to employees

an investigation has been mounted by the U.S. Department of Health, Education and Welfare, while the Sudreau Report in France can also be mentioned. Within the past few months the UN has been stirring up controversy with its report calling for wider "social" reporting by multi-national concerns.

There is plenty of practical advice in the book about how reports to employees (and reports about employees) should be set out. And there are

BOOK REVIEW BY BARRY RILEY

therefore centres around the question of how to gain credibility, of how to avoid the trap of employees coming to regard the gaily-coloured, graphically ingenious documents circulated to them as being "patronising and gimmicky, and peddling propaganda."

Mr. Hilton's book, sub-titled "how to communicate financial information to employees," is a meticulously researched and attractively produced, with a lavish centre section of practical examples of the art. But in the end there are no really convincing arguments about how to bridge the credibility gap. Is employee reporting to be just another tool of management, or is it to be a way of forging a common purpose?

The author's final conclusion is surprisingly lukewarm. "Employee reports are just a stage in the evolution of communication and participation programmes in industry," he writes. "They are worthwhile, but on their own they will not solve many problems."

The growth of employee reporting reflects, of course, a wave of concern throughout the Western world about the need to widen the audience for accounting information. The U.K. accountants produced their study of "The Corporate Report" several years ago, and

valuable warnings that the project should not be entered into lightly. Once started, any attempt to back out of annual reporting in future would be received with suspicion.

Disappointingly, however, there are few valuable suggestions about how to put employee reporting on to a more legitimate footing. Advice that reports should be put under the control of external public relations consultants may be practical, but offers no fundamental advance. And Mr. Hilton, who is editor of Accountancy Age, is rightly sceptical about the possibility that the accounting profession should play a big role. Accountants lack the imagination for effective communication, he suggests, arguing that it was accountants and auditors who made published accounts incomprehensible in the first place.

There must be some other alternative: perhaps the unions could be brought into financial reporting? In the meantime Mr. Hilton's dream that both sides of industry could achieve genuine communication will not be achieved if the figures are loaded one way or the other. If, for instance, one side insists on talking about value added while the other wants to know about profits.

BUSINESS COURSES

Matrix management, Brunel University, Middlesex. June 14-20-23. Fee: £175. Details from the Secretary, Management Programme, Brunel University, Uxbridge, Middlesex.

The Art of Purchasing Management, Clarendon Hotel, Leamington Spa, June 19-23. Fee: £195 plus VAT. Details from Purchasing Economics, Pelt House, 33, Station Square, Petts Wood, Kent.

Financial Public Relations, Quaglin's, London. June 14-15. Fee: £50 plus VAT. Details from CAM Foundation, Abford House, 15, Wilton Road, London, S.W.1.

Job Evaluation, Whites Hotel, London. June 13-15. Fee: £181.10. Details from the Course Administrator, Institute of Personnel Management, Central House, Upper Woburn Place, London, W.C.1.

WHICH £17,000 a year chief executive was sacked from his job of running an organisation which spends an annual £250m. plus? And why did his employers feel the organisation would be best run by allowing the operating divisions to manage their own affairs without any central corporate management?

The chief executive who lost his job was Mr. Frank Amos, widely acknowledged as one of the top men in the business of running a multi-million pound local authority. But his employers, Birmingham City Council, decided last year that the provision of services to 1.1m. people could be carried out without the sophistication of corporate management.

Birmingham's decision has been echoed by a number of other local authorities over the past 12 months—making the job of local authority chief executive almost as insecure as managing a football club.

It highlights the irony that whichever political party wins power at the ballot box in this week's local government elections, the question of how that power should be implemented is still being hotly debated in town halls throughout Britain.

When the Tory re-organisation of local government took place in 1974, local authorities were all too eager uncritically to adopt what was for them a totally different management style: the grandly-titled "corporate management" involving constant control of individual services from the centre.

While many of them adopted the trappings of corporate management—such as a chief executive to run operations—it soon became apparent that this was merely lip-service as far as many town halls were concerned. About a dozen authorities have since gone so far as to scrap the new system and sack their chief executives.

Even those which have resisted the step do not appear to have embraced the concept of corporate management with any enthusiasm. A recent "think tank" report commented that "even where corporate machinery" is in existence, decisions and policies seem to be made in very much the same ways as in the past."

A similar point emerged from a detailed study of 27 local authorities carried out by the Birmingham-based Institute of Local Government Studies. Some councils were developing corporate systems that were refined "but which had 'rather little or only peripheral impact upon the budgetary process'."

The issue of how local authorities manage themselves is not just of academic interest—their activities impinge upon

As the country goes to the polls, David Churchill asks why 'corporate management' seems to have lost its glamour for some local authorities

The precarious life of today's Town Clerk

every aspect of industrial and public life, and the question of how public money is spent is obviously of wide concern.

Local authority management now falls between two basic extremes. Traditionally, authorities gave a wide freedom of operation to individual departments, such as education and social services, to operate independently of each other. Financial budgets tended to be set once a year, often after stormy committee meetings, and then departments were left alone to

conduct their services more or less as they saw fit. As Mr. Freddie Ward, president of the Society of Local Authority Chief Executives (SOLACE) points out: "The defects of unco-ordinated departmentalism, with each committee and department content to paddle its own canoe, are even more obvious when the allocation of resources is critical, as at present."

The other extreme—at which some authorities have aimed, but few have achieved—is for the resources used by individual departments to be determined, allocated and continually controlled by a central, or corporate, management responsible for considering the resources and objectives of the organisation as a whole. Linked to this is the concept of corporate planning—looking ahead to the potential needs and problems over several years, rather than the immediate financial year.

"There is an overwhelming case," believes Mr. Ward, "for a system of corporate management which enables priorities to be established in a systematic to the setting up of such massive Whitehall monoliths as the Department of Trade and Industry and the Department of Environment. In local government, the wholesale reorganisation which came into force in 1974 was intended to set up more powerful and larger authorities than before. The new entities were the shire counties and the metropolitan districts, with the smaller district councils as a second 'tier'."

Larger authorities, it was argued, would be able to afford better quality personnel, not only to run existing services, but to improve the "overall economic, cultural and physical well-being of the community."

That objective was set in the 1972 report of a working party headed by a Mr. Bains, then Clerk of the Kent County Council, and subsequently known as the Bains Report. It broadly advocated that a local authority should have a central committee to formulate main objectives and priorities and oversee all the authority's activities.

This central committee should be advised by a Chief Executive who would be the top official of the local authority, Bains suggested. The chief executive need not have any specific professional qualifications for the job, unlike the tendency for Town Clerks—who the Chief

Executive replaced—to have legal training.

To keep the Chief Executive's mind and desk free to deal with major issues he should not have departmental responsibilities, Bains argued. Instead he should be assisted by a formally-recognised management team, a kind of cabinet formed from the more important department heads.

Bains recommended that inter-disciplinary teams of officials should also be formed to advise the various standing committees for each council



Rubbish collection: centrally controlled or left to its own devices?

tank requires: "Comprehensive assessments of needs, existing policies and programmes; the definition, ranking and agreement of objectives; assessment of alternative ways of achieving objectives and of the trade-offs between these; and finally, based on all these, the development of a comprehensive strategy which provides the framework for all subsequent sector plans."

But the think tank did conclude that "many authorities have done quite a lot in setting up the organisation and introducing some of the basic methods needed for corporate approaches." These methods included the Chief Executive and committee structure suggested by Bains. In addition, some authorities had set up planning units to collect data on needs and resources, formulate options and plans, and carry out policy analysis and review. Others had prepared formal statements of needs and objectives, and plans for meeting them which crossed traditional departmental fields of responsibility and spanned several years. And others still were making significant attempts to break new ground in co-ordinating resource allocation from several departments or agencies in response to a need.

But in a number of cases, the think tank adds, management style was still traditional. "The Chief Executive was simply the old town clerk (sometimes the same individual) with a new title, or the corporate planning unit simply his somewhat extended personal staff."

Although it may be unfair to judge local authorities too harshly over their reluctance rapidly to embrace corporate management in reality as well as in theory, four possible reasons were suggested by the think tank for the slower-than-expected progress.

First, changing long established ways of working is bound to be slow, especially when the old structure of services and departments remains unchanged.

Secondly, working in a corporate way is difficult, and many local authorities are simply not very good at it or

still not sure of its value. The restrictions on public expenditure over the past few years have also tended to reduce the earlier interest shown by some local authorities, who feel that a new management style needs a more prosperous economy in which to flourish.

Thirdly, corporate action by local authorities is inhibited by the activities and indeed the mere existence of the large number of agencies with whom they have to deal. Central government departments are only one group of contacts; local authorities are another. Co-ordination between a rural county and a metropolitan district, for example, can be hampered by differences between the interests and often the political complexion of the two authorities.

Finally, local authorities' reluctance wholeheartedly to adopt corporate management may possibly be caused by the over-bearing way in which central government dictates to local authorities on many issues. Some authorities undoubtedly believe that if Whitehall is going to dictate policies and procedures, then there is little point in pursuing separate corporate plans.



Promotional and technical literature for export sales to the Arabic-speaking countries of the Middle East and Iran must be translated and typeset in the idiom and style the market demands, by specialists

BRADBURY WILKINSON (GRAPHICS) LTD
NEW MALDEN,
SURREY KT3 4NH
TELEPHONE: 01-847 1271

FOOD FOR THOUGHTFUL INVESTORS

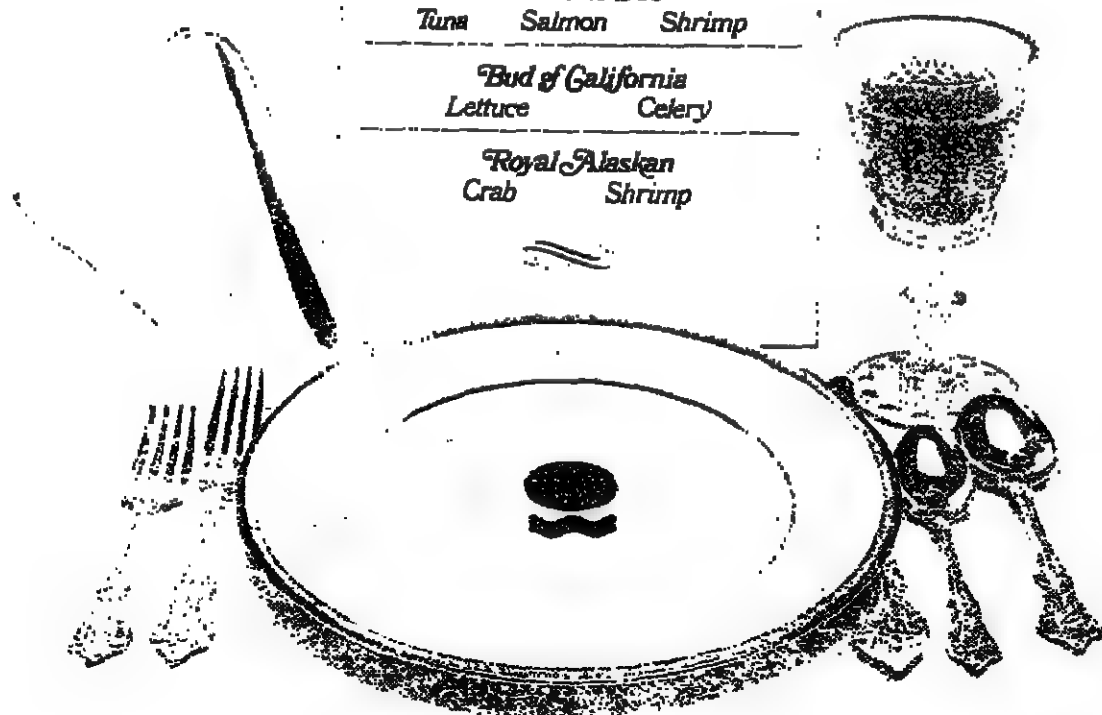
Carte

Dole Pineapple Bananas Mushrooms

BumbleBee Tuna Salmon Shrimp

Bud of California Lettuce Celery

Royal Alaskan Crab Shrimp



The best of food, outstanding service, excellent company. The ingredients of fine dining, whether in your favorite restaurant or for a gourmet meal at home.

Castle & Cooke offers these same ingredients to the discriminating investor. Our product line is composed primarily of quality foods, ranging from frozen seafoods to fresh produce to a variety of processed foods.

We have a long-standing tradition of service. Service to the consumer through offering the finest products. Service to the investor exemplified by our unbroken record of cash dividends since 1896.

Finally, we at Castle & Cooke offer the thoughtful investor excellent company. The company of such leading brands as Dole pineapple, mushrooms, and bananas, of Bumble Bee and Royal Alaskan seafoods, and of Bud of California lettuce and celery. The company of thousands of satisfied stockholders.

Won't you join us?

CASTLE & COOKE
CASTLE & COOKE, INC., HONOLULU AND SAN FRANCISCO

PHOENIX ASSURANCE COMPANY LIMITED

Encouraging results for 1977—reserves strengthened by £18m.



Highlights from the Statement by the Chairman, Lord De L'Isle, VC KG.

- * Results for 1977 are encouraging.
- * Almost £18 million to be added to reserves.
- * Group profit before tax was £36 million as compared with £24 million in 1976.
- * Maximum permitted dividend.
- * Since 1966, expenses expressed as a ratio of premium income on fire and accident account have fallen from 39.7% to 30.9% and on marine and aviation account from 17.6% to 9.3%.
- * In the same period, premium income has increased five-fold and investment earnings are now nine times greater.
- * Confidence in the future.

From the Operational Review

General insurance

- * United Kingdom results particularly affected by the motor and liability classes.
- * Striking improvement in underwriting experience in the United States.
- * Significant underwriting losses from north west Europe.
- * Other overseas results generally held up well with good profits coming from Australia, Canada, Denmark and the International Division in New York.
- * Long-term insurance
- * In a year of reduced demand for personal life assurance, progress was made. The acquisition of Property Growth Assurance Company Ltd. gives access to wider markets.

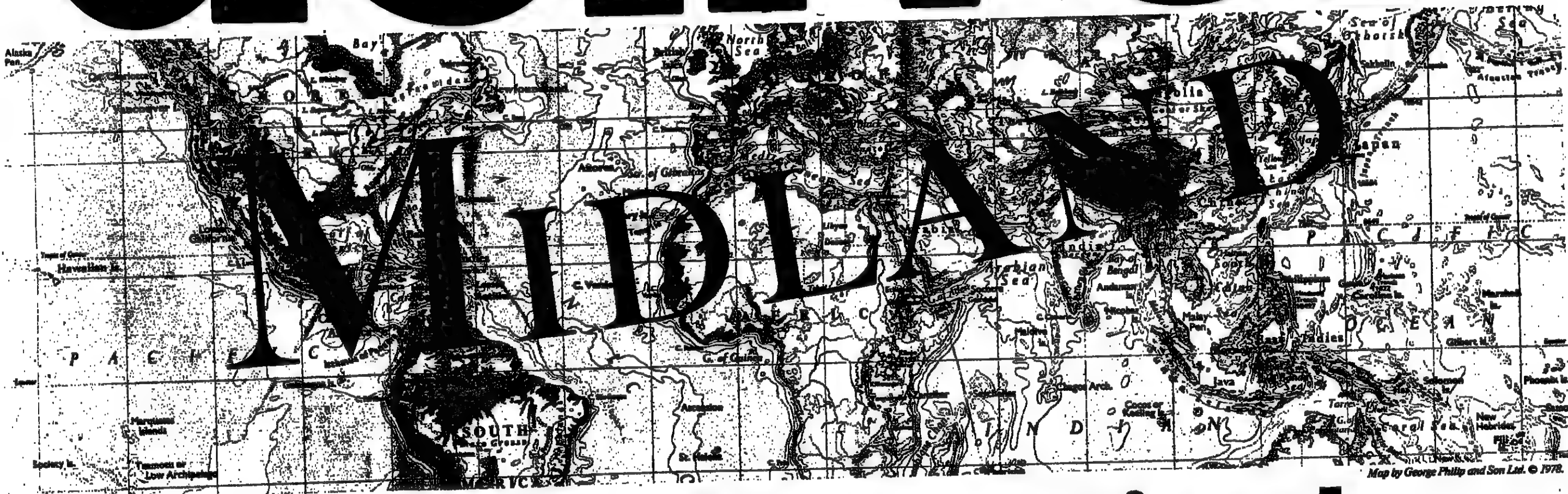
SUMMARY OF RESULTS

	1977 £m	1976 £m
General insurance		
Premiums written (net of reinsurance)	323.0	323.4
Life business		
New sums assured (net of reinsurance)	1,110.0	1,194.0
Investment income	35.9	32.2
Underwriting transfers		
General insurance	-1.0	-9.4
Long-term insurance	1.9	1.8
Taxation, minority interests and other charges	12.7	12.0
Group net profit	24.1	12.6
Cost of dividends	6.3	5.4
Profit retained	17.8	7.2
Earnings per share	40.2p	21.5p
Dividends per share	10.348p	9.345p



For a copy of the Annual Report 1977, please write to Secretarial Department, Phoenix House, 4-5 King William Street, London EC4P 4HR.

We deliver



A range of International services no other bank can offer.

International Finance. Competitively.

Short-term and fixed rate medium-term finance covered by ECGD guarantees.
Negotiating or discounting bills, Acceptance credits, Eurocurrency finance, Export factoring.
International leasing and Instalment finance.

International Branch Network. Competitively.

Being the exclusive U.K. member of European Banks International (EBIC) Midland can offer their clients the complete facilities of seven major independent European banks with 10,000 branches throughout Europe and a world-wide network of joint ventures.

International Transfers. Competitively.

Foreign exchange, spot and forward contracts.
Clean payments, mail transfers, telegraphic transfers, drafts.
Bills for collection, documentary credits.

International Corporate Travel. Competitively.

Exclusive to Midland, direct access to the world's largest travel company—Thomas Cook—a member of the Midland Bank Group.

The fastest growing company in business travel providing the most comprehensive business travel service including foreign exchange in 150 currencies, travellers cheques, V.I.P. Service cards and 870 offices in 145 countries.

Competitively.

To ensure your company makes the most of its international opportunities, you really should talk with us.

International Merchant Banking. Competitively.

A complete range of international financial services from Samuel Montagu, a major Merchant Bank and a member of the Midland Bank Group.

Eurocurrency credits, bond issues, corporate and investment services.

Samuel Montagu are also major market makers in bullion, foreign exchange and Eurobonds.

International Insurance. Competitively.

Every aspect of insurance and reinsurance.

International Marketing Services. Competitively.

A unique range of marketing and export finance services through the London American International Corporation Limited, operating in over 100 countries.

Information on regulations, tariffs, documentation procedures and exchange control.

For a prompt answer, contact George Bryen, tel: London 606 9944. Ext 4057. Telex 888401 or contact any of our branches throughout the U.K.

TEST US.

Midland Bank International Delivers.

Midland Bank Limited, International Division, 60 Gracechurch Street, London EC3P 3BN. Tel: 01-606 9944.



Moving the movement

BY ANTHONY HARRIS

THE BUILDING SOCIETY movement has not been setting quite the friendly Press it is accustomed to recently: criticisms from the clearing banks, the Government, the Registrar of Friendly Societies and others have found their echo in this column among other places. The charges of being inward-looking, never-branched, financially destitute and perhaps too concentrated in some of their lending criteria are all serious ones, and do need airing. All the same, there is no doubt that the societies do their own thing supremely well.

Gratifying

The physical effect on this country has been startling and on the whole gratifying. As a people we are better housed than many other nations, and higher GDP per capita—and if the National Income Blue Book contained a more realistic valuation of the imputed value of the services we get from our housing, the figures would make less doubtful reading. The very physical shape of our cities is an monument to this remarkable financial invention, and as one who believes that an acre lost to farmland for the sake of habitable houses with their own little patch is an acre well spent, I rejoice in it.

Indeed, it takes the siege mentality, known as "strategic considerations" to justify the planning restrictions which prevent the potential for things to change and an acre, which dates back well before the Chartists, from expressing itself in the land market. The existing standard of housing determines the living standards of generations to come, and deserves economic priority.

To argue against the societies when they claim to be immune from the restrictions which beset other financial intermediaries, or cavil at official attempts to smooth out the flow of loan money a little, is not to say that these benefits are not well having. Even the claim made by some economists that the movement has diverted funds which might have gone to industry is only a question of degree—and there is precious little evidence that the security or the cost of funds has tended to do with British industrial performance. The drain of talent into professions privileged with monopoly fee-scales is probably more important than the drain of financial capital into housing. We may have a little too much of a good thing, but it is unquestionably a good thing.

What is beyond question, though, is that if we may have too much of a good thing, there are other countries which have far too little of it. This is a British invention crying out to be exported.

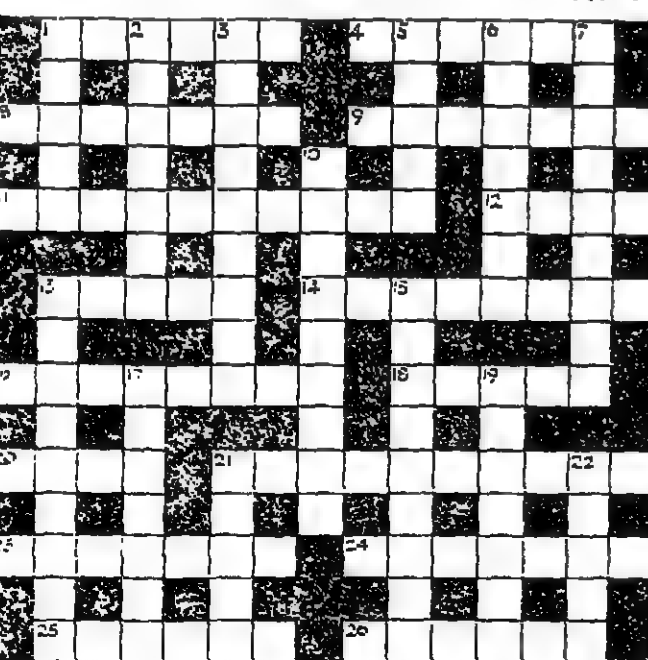
TV/Radio

† Indicates programmes in black and white

BBC 1

6.10-7.35 a.m. Open University.
9.25 For Schools. Colleges. 12.15 p.m. From 12.45 Midday News. 1.00 Public Aff. 1.45 Rastine. 2.00 You and Me. 2.15 For Schools. Colleges. 3.15 Songs of Praise. 3.55 Regional News for England (except London). 4.35 Play School. 4.45 Champion the Winner Horse. 4.55 Guller and the Ghost Chasers. 5.00 John Craven's Newsround. 5.10 Stop-watch.

F.T. CROSSWORD PUZZLE No. 3656



- ACROSS**
- General name for a football team (6)
 - Express disapproval of the Prime (6)
 - Wood for a novice to burn (7)
 - Mr. Weller told us to be very careful of them (7)
 - Long for a car in Berks (10)
 - Dad's attitude for (4)
 - Dad's attitude for (4)
 - Need to be changed in a flash (7)
 - Words put together may mean a stretch (15)
 - Scenes for one's belongings (10)
 - Movers smartly back for a short trip (14)
 - You can read or watch the part of a (10)
 - Thin character shows skill in the (17)
 - To us the object d'art is odd (17)
 - A sister associated with Yorkshire (16)
- DOWN**
- French description of Tommy Atkins (5)
 - A chap gets on, but he copes (10)
 - Bear in mind, you have to amuse (9)
 - Stake something misleading (10)
 - Not on side, but discreet to (10)
 - Nicklaus, Watson, Player—we give them a big hand (5, 4, 1)
 - Browse endlessly for warning to chiefs (10)
 - Preface with dictator present (11)
 - Trail round the end without friends (17)
 - Unbeliever at the robbery (7)
 - Unlikely to be me the solution in brief (15)
 - Invective for a bachelor to employ (15)

The solution of last Saturday's prize puzzle will be published with names of winners next Saturday.

THE WEEK IN THE COURTS

Rising rent problem

BY JUSTINIAN

RENT REVIEW clauses are back on the legal stage. These clauses in long-term leases are designed to cope with the consequences of inflation, but in the process have thrown up a host of legal problems. A year ago the House of Lords had to determine whether the time fixed in a long-term lease for regular review of the rent was a condition of the lease, or whether it was a covenant which could be varied by the parties.

To-morrow the House of Lords will be hearing another rent review case in which the problem is what is meant by a "reasonable rent". Does it mean a rent that is reasonable for the premises, or does it mean a rent that would be reasonable for the tenant to pay? The problem arose in this way. Trustees of a settlement granted to a company a lease of factory premises in 1968. The lease provided for a rent of £2,000 a year for the first seven years. It was provided by the lease that for the second and third seven-year periods the rent should be reviewed. The lease provided that the rent should be reviewed by an independent surveyor.

In 1969 the premises were burnt down. They were rebuilt from proceeds of fire insurance, but the factory was materially improved by making certain additions. The lease provided that the rent should be reviewed by an independent surveyor. The surveyor's valuation was £32,000 a year. The trustees claimed that the rent should be £2,000 a year, the original rent. The company claimed that the rent should be £32,000 a year, the surveyor's valuation.

When it came to assessing the rent for the second seven-year period in 1974 the landlords claimed that the rent should be assessed as a reasonable rent for the premises as they then were, without regard to their recent history. The lessees contended that the rent should be a reasonable rent for the premises with regard to the improvements which they had paid. Faced with this quandary the independent surveyor sought the advice of the courts. So far, the score is two all the trial judge and one all the Court of Appeal.

It is manifestly clear that the parties in drawing up their lease did not anticipate the events that occurred. All the judges expressed their acute awareness of the fact that the law should be applied in a way which would not cause a manifest injustice on them. What then were the rival arguments?

The landlords' argument had the merit of attractive simplicity. Look at the demised premises, they said. They had been improved, because in their licence after the fire the parties specifically provided that the demised premises should there- after include all additions made to the premises in the course of any alterations. If you ask the question, what is the reasonable rent to be paid for the demised premises, there was a straightforward answer. If you have any regard for giving effect to simple language, the demised premises must include the improvements. If that works injustice on the lessees, then that is a misfortune they must bear. They cannot toist their misfortune to the landlords who contracted, perhaps fortuitously, for any advantage they might reap.

The trial judge thought that the independent surveyor was entitled to have regard to the improvements, wholly paid for by the lessees, and that, therefore, it would be unreasonable for the landlords to expect not only the ultimate benefit of the improvements, but in the meantime receive also an increased rent—and an increased rent arising simply because the lessees had made the improvements with the express licence of the landlords. If the law were simply a matter of declaring what would be a just result in the circumstances, few would cavil with that reasoning. But the courts are there to administer justice according to law, and the law relating to landlord and tenant is no far from Parliament has not intervened, as it has done so massively since the Second World War is based upon what landlord and tenant agree between themselves.

At the end of the day, the issue resolves itself into the judicial approach to language used by contracting parties. The words "a reasonable rent for the demised premises" are on the face of them unambiguous. Once the parties declared that the improvements were part of the demised premises, there was little room for argument that they could not be disentangled from the premises for the purposes of assessing the rent.

Prince's menu fetches £280

A ROYAL MENU on which Prince Charles had written notes fetched £280 at an auction at "The World's Largest Jubilee Sale" at Olympia in aid of the Save the Children Fund. The menu was presented to the fund by Mr. Ivor Spencer, president of the National Association of Professional Toastmasters. "Already a wealthy American has approached me to see if I will part with any more

of my Royal menu, but they are not for sale," he said. The menu was for a Silver Jubilee dinner at a private club in London in December. It included smoked salmon, lamb cutlets, fresh french beans, garden peas, roast and new potatoes, apple pie and cream or custard, and a choice of crêpes, omelette, liqueurs and brandy, and wines.

The bugbear of inflation of course is the bugbear. If money values had not dropped in the seven years since 1968, the reasonable rent for the next seven would not come out at anything very different and no one would suffer. But we live in inflationary times. Those who drafted the licence in 1968 and included the improvements in the demised premises might have anticipated the effect of that provision on the rent review clauses. Clearly they did not. But unless landlords and tenants are prepared to give carte blanche to independent surveyors (and ultimately to the courts) to do what is fair in all the circumstances, they cannot complain that the specific language they use produces unfortunate results. However sympathetic the courts are to unjust results, they are ultimately the servants of the law, and few people would really want judges to sit in the palm tree administering that kind of uncontrolled justice and unsystematised law. They ask for decisions according to a sophisticated legal system—and on the whole that provides a more just result, although very occasionally it produces injustice.

United Scientific Holdings Ltd. v. Burnley Borough Council [1977] 2 W.L.R. 806. P. v. F. [1977] 1 W.L.R. 1029.

Omens bode well after year of the Good Guys

IT HAS BEEN a highly satisfactory season for English football, possibly a really significant one. Recent performances by our national team under Ron Greenwood, including that Brazil match, have been most encouraging and bode well for the future. This feeling of optimism is backed by events in the English League, not just in the First Division, but in all four, where success has come to managers who have put their trust in good positive football. The emphasis

SOCCER

BY TREVOR BAILEY

has been towards craft and away from crutch. All too frequently in the past clubs with strictly limited ability have gained promotion through effort, cunning, and a hard, uncompromising defence; efficient machines adept at picking up points, but dull and often painful to watch. This is a charge that cannot be levelled against Watford, who have realistically turned their way out of the Fourth Division with 71 points and 35 goals. They have, under the talented Graham Taylor, combined success in entertainment and in the league as no surprise if they next year they had gained promotion to the Second Division. Wrexham were not only the outstanding side in the Third Division, but their performance in numerous cup-ties showed they possess that little extra. The jet will fly between London and New York on a regular service replacing their Boeing 747 jumbo jets.

Disabled 'myth' attacked

THE MYTH that disabled people are a problem must be ended, Mr. Alf Morris, Minister for the Disabled, said. Barriers which force millions of disabled to lead needlessly restricted lives must be removed. He told the annual convention of the National Society for Mentally Handicapped Children in London this week-end. "The very last thing disabled people want is to be regarded as objects of pity. They want to be a part of society and not apart from society. The 'upstairs, downstairs' approach to the disabled is both disrespectful and intolerable." There are at least 3.5m. physically handicapped people in Britain, he said. The problem of improving access for them was not, therefore, a minority problem it might appear.

TWA Tristar on display

TRANS WORLD Airlines displayed the pride of their fleet at Heathrow Airport yesterday when their first Lockheed Tristar jet went into operation. The jet will fly between London and New York on a regular service replacing their Boeing 747 jumbo jets. The jet will fly between London and New York on a regular service replacing their Boeing 747 jumbo jets.

Tory move to preserve drivers' hours

THE Scottish Highlands and other rural areas should be exempt from European Economic Community regulations on drivers' hours until the roads are improved, says a report published yesterday. The report, prepared by a policy committee of the Scottish Conservative and Unionist Association, says that the cost of limiting drivers' hours would be too expensive for the transport and distribution industry. These limits should be introduced only when the standard of roads are comparable to those in the south of Britain, it argues.

Women have only 17% of council seats

WOMEN are still substantially under-represented on county councils in England and Wales, a new study shows. The study, by Mr. Stephen Bristow of Manchester Polytechnic, found that women accounted for almost 17 per cent of county councillors. This was only marginally better than the level of participation on county councils before the 1974 local government reorganisation. Women councillors were more likely to be Conservative and come from affluent, residential areas especially in the South of England.

Ivory Coast flights start next week

Financial Times Reporter
BRITISH Caledonian the U.K. second-force flag airline, starts the first direct air link between this country and the Ivory Coast in West Africa on May 7, with a once-weekly Boeing 707 service between Gatwick and Abidjan via Monrovia in Liberia. This extends British Caledonian's already big network of services to West Africa, which includes flights to Nigeria, Ghana, Liberia, Sierra Leone, Gambia and Senegal. British Caledonian managing director, said the airline's aim was to boost the rapidly developing trade links between the Ivory Coast and the U.K. Several major U.K. companies were already involved in major developments in the Ivory Coast, which had one of the strongest economies in West Africa. While the major part of the total traffic on the route would be business travel, the airline would be seeking to develop holiday traffic to the Ivory Coast which offered excellent hotels and beaches. British Caledonian's subsidiary Golden Link Holidays, was planning to produce a range of holidays to the Ivory Coast, probably for the next winter season.

Delta starts N. Atlantic flights

Aerospace Correspondent
DELTA AIR LINES of the U.S. has become the latest scheduled airline on the North Atlantic air route. It began flights yesterday between Atlanta, Georgia, and Gatwick Airport, London. Delta is using the Rolls-Royce powered Lockheed Tristar jetliner for its daily service, which leaves Gatwick at 12.10 p.m. and arrives in Atlanta at 4.25 p.m. local time. On the return, flights will leave Atlanta at 6.30 p.m. arriving at Gatwick at 7.30 next morning. The flight provides direct connections to New Orleans. Cheapest fares on the route will be £76 for a single ticket, £124 for a round trip, £124 for a round trip, £124 for a round trip.

Bigger wheat harvest forecast

WITHIN 20 years Britain's farmers will be growing half as much wheat again from the same area of land as now, says Mr. John Blingham of the Plant Breeding Institute, Cambridge. New and improved wheat varieties will increase yields by one per cent a year for the next 20 years, he said yesterday. A further increase of 1 per cent a year would come from improved farming methods, and an up to a 50 per cent increase within 20 years with farmers growing 5m. tons of grain.

New pit record

MINERS at Hem Heath Colliery, near Stoke-on-Trent, have broken a 11-year-old record by producing 7,429 tons of coal in a week. Output per man-shift also reached a new high, 3.56 tons, against a previous best of 3.50.

Stampede is on for Leonardo

A STAMPEDE by anti-post gamblers eager to get their hands on the prize money after his apparently effortless victory in Saturday's White Rose Stakes at the Seven Barrows colts Derby odds halved in a matter of minutes to 7-1. Leonardo da Vinci, a 20-1 chance in most books until he jumped off for the Ascot race.

RACING

BY DOMINIC WIGAN

Lupe, his dam, found the Surrey course no problem when always going far too well for State Pension (a predecessor of Leonardo da Vinci at Seven Barrows) in the 1970 Oaks. Brigadier Gerard, his sire, was a particularly handy sort who would, I feel certain, have been well at Epsom, had he been aimed at the Derby. The £20,000 - to the winner Royal Doulton Handicap Hurdle at Haydock, yesterday, proved a performance was that of a genuine top-class colt.

Monksfield, and a former champion Night Nurse, both being placed. In an exciting finish, Colin Tinker kept the lightly-weighted outsider Royal Gay going, to hold off a particularly determined late thrust from Monksfield, from whom he was receiving 2-1. Turning to to-day's three meetings, the most interesting with an eye to the future is probably

BRIGHTON

1.30-Jazz King
2.00-Tinted Green
2.30-Silvercup
3.00-Peach Melba
3.30-Caven Mill
4.00-Rocky Drive
4.30-United

Brighton's classic Trial, the Hetherston Stakes, in which Derby entries Crispian Beau and Magnitude will be showing their horns. Both may go well without proving capable of upsetting Caven Mill.

FINANCIAL TIMES

BRACKEN HOUSE, CANNON STREET, LONDON EC4A 3BT

Telegrams: Finantime, London FSA. Telex: 886341/2, 883897

Telephone: 01-248 8000

Tuesday May 2 1978

Progress on
Namibia

MR. SAM NUJOMA, President of the UN-recognised Nationalist movement in Namibia, has at least left the door ajar to further negotiations on the future of Namibia or South West Africa and for this the five Western members of the Security Council whose proposals form the basis of that negotiation should be relieved.

The five—Britain, the U.S., France, West Germany and Canada—have been ferrying between Mr. Nujoma's South West Africa People's Organisation, SWAPO, and the South African Government for over a year. Earlier this month they published their proposals for a UN-supervised transition to elections and independence for the territory. At the beginning of last week, Mr. Vorster, the South African Prime Minister, accepted the proposals, albeit with some "clarifications." Four days later Mr. Nujoma replied, and though his response was superficially much less encouraging than Mr. Vorster's, he implied that negotiations should go on.

Achievement

Given the bitterness and suspicion which pervade politics today in Southern Africa, it would have been highly surprising if both sides had embraced the Western plan even after a year of preliminary negotiations. It is undoubtedly a major achievement for the West to have persuaded Mr. Vorster to move as far as he has. Less than a year ago, Pretoria was insisting on the inalienability of its own internal settlement based on apartheid. Now it has accepted a UN military and civilian presence, UN supervised elections, and the removal of all but a comparative handful of its 20,000 troops before those elections.

Mr. Vorster has effectively reserved his position on what should happen to the remaining troops once an election has taken place. He has steadfastly refused to allow Namibia's only effective port, controlled by South Africa under different judicial statutes, to become part of the agreement. But despite these South African reservations, SWAPO in the interim seems more upbeat. In his reply to the Western proposals Mr. Nujoma has

Proviso

Fortunately the Namibian situation is a little less urgent in need of an immediate solution than Rhodesia and the Western powers have done well to get this far in a year. The front-line African states still back the Western efforts: that, apparently, includes the Soviet-backed Government in Angola. The effort to bridge the gap between the two sides must go on, with the proviso that the Western powers should heed the lesson of Rhodesia and not tie the strings on their package too tight, too soon.

A strategy for
electronics

TEN YEARS ago the British Government and the electronics industry recognised three things—that the development of integrated circuits would have a revolutionary effect on all segments of the industry, that the U.K.-owned component makers were too small to exploit the new technology effectively, and that Government support would be needed to maintain any significant presence in the field. Since then, the expected revolution has taken place and the British position remains weak: a good deal of public money has been spent, with little apparent success, and sporadic attempts to bring the companies together have come to nothing. Now the Government is on the point of committing even higher sums to the industry. The question is whether the weaknesses of past assistance schemes—a lack of clarity about objectives and method—can be avoided.

Infrastructure

The matter urgent because of the speed with which technology is advancing. The big-volume manufacturers of integrated circuits, mainly in the U.S., are able to incorporate on a single "chip" circuits of ever-increasing complexity. Instead of simply acting as component suppliers, they are in a position to design and manufacture systems and equipment. The fear in the U.K., as in other European countries, is that without an indigenous integrated circuit capacity, the established makers of electronic equipment could eventually be overwhelmed by the large, vertically integrated electronics companies of the U.S. and Japan. That is why, for example, the German Government, despite its aversion to state subsidies, is spending large sums to bolster its national industry—though the sums are dwarfed by what the Japanese are doing. The aim is to improve the infrastructure on which the whole of the electronics industry is thought to ultimately depend.

The British industry falls into three sectors—the nationally-owned companies (GEC, Plessey and Ferranti), the two foreign-owned companies

Foreign companies

which have substantial manufacturing and research facilities in the U.K. (ITT and Philips), and several other multinationals who do some production here: a large proportion of the country's requirements is imported from the U.S. It has seemed obvious for years that the three British companies should pool their efforts, not merely to secure economies of scale in production and research, but to make better use of the relatively few engineers and scientists who are experts in the field. Up to now a variety of conflicts has kept them apart, but the commercial and financial pressure for collaboration has become much stronger.

Such collaboration is certainly desirable, but even if it happens the British-owned companies cannot be expected to establish themselves as mass-producers of standard circuits. In theory it might be possible to create a European consortium of electronics companies whose internal requirements would provide the base load for a big-volume operation, but even in the political and other obstacles could be overcome, the chances are that vast sums would be spent in a vain attempt to catch up with the Americans and the Japanese, instead of capitalising on the areas where the European electronics industry is strong. A more promising approach would be to develop collaborative arrangements with the established mass-producers. For the U.K. this means encouraging Philips and ITT to expand their operations and inviting other multinationals (including the Japanese) to come in.

Behind the IMF scenes
in Mexico City

BY GUY DE JONQUIERES AND PETER RIDDELL

THE world's finance ministers are apparently not much nearer a detailed agreement on how to deal with international economic problems after the two-day weekend meeting of the International Monetary Fund interim committee in Mexico City. This produced the same kind of bland communique as other similar talks in the past two years. Everyone agreed that the outlook was unsatisfactory and that co-ordinated action should be taken, but beyond that there have been few signs of any significant progress towards a common approach which has any real meaning.

The differences between the main industrialised countries, both on priorities and on measures, remain, even if there is agreement on the goals of higher growth, currency stability, energy conservation, avoiding protectionism and improving capital flows to developing countries. The main division is still between the U.S. and Germany though their relations are friendlier than earlier this year. Mr. Michael Rumsfeld, the U.S. Treasury Secretary, again called for action to promote faster growth, to which the West German ministers remained cool, stressing the need for currency stability.

These differences were reflected in a muted form in a comment by Mr. Denis Healey, the Chancellor of the Exchequer and chairman of the interim committee. He said a minority of the committee (though not naming West Germany) felt that currency instability was a principal cause of the slow growth of the world economy and that collective action was therefore needed to restore equilibrium. However, Mr. Healey suggested that action on currencies alone was doomed to

Independent
initiative

Only a few months ago, the idea of the EEC taking an independent initiative in the monetary field would have been dismissed as quibbling. But it has gained fresh political impetus from the discussions between Heads of Government of the Nine in Copenhagen three weeks ago, when Chancellor Helmut Schmidt surprised his colleagues by abruptly reversing the negative attitude which Germany had displayed towards such proposals in the past.

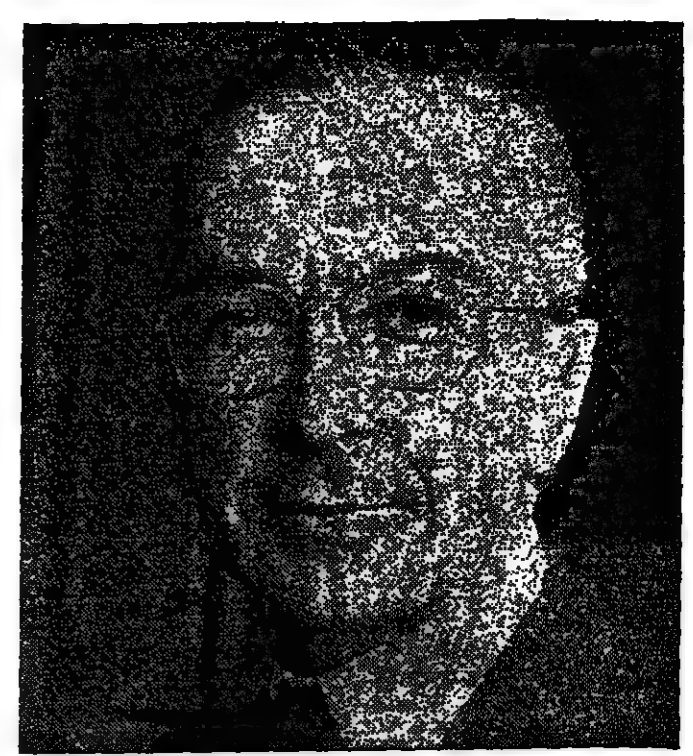
However, the EEC Governments entered the Mexico City meeting only loosely united. They differed both in their attitudes towards specific proposals and in their assessments of how much the meeting could contribute to a return to monetary stability. The U.K. has taken the view that the talks could constitute an important stepping stone towards a multilateral solution. But several other members of the Community have been sceptical about what

can be achieved as long as the U.S. remains unwilling to tackle the problem of the dollar seriously. So they have been looking with increased interest at what the EEC might be able to accomplish on its own.

Herr Schmidt has recently been at pains to allay suspicions, notably in Britain, that his ideas were intended to be hostile to the U.S. But his thinking has undoubtedly been influenced by impatience with the indecisiveness of the Carter Administration, and disappointment with the failure of the currency measures arranged between the U.S. and Germany last March to impress foreign exchange markets. His view appears to be that the EEC should aim at arrangements capable of working on their own, but which would be compatible with any future moves on currency reform agreed on in the broader international framework of the IMF.

The precise form which such arrangements might take has yet to be decided. But what Herr Schmidt appears to have in mind is the creation of an EEC currency "zone," sufficiently cohesive to prevent speculative flows of dollars into individual member currencies. It also should inhibit gyrations between exchange rates within the EEC, which both he and President Valéry Giscard d'Estaing of France believe to be a major factor constraining the Community's economic growth.

The first step would be to link freely-floating currencies like sterling and the French franc to the "snake," whose EEC members are Germany, Denmark, Benelux countries and Austria, Switzerland and Nor-



Jacques de la Rosière, the incoming managing director of the IMF who will have to deal with the problems left from Mexico City.

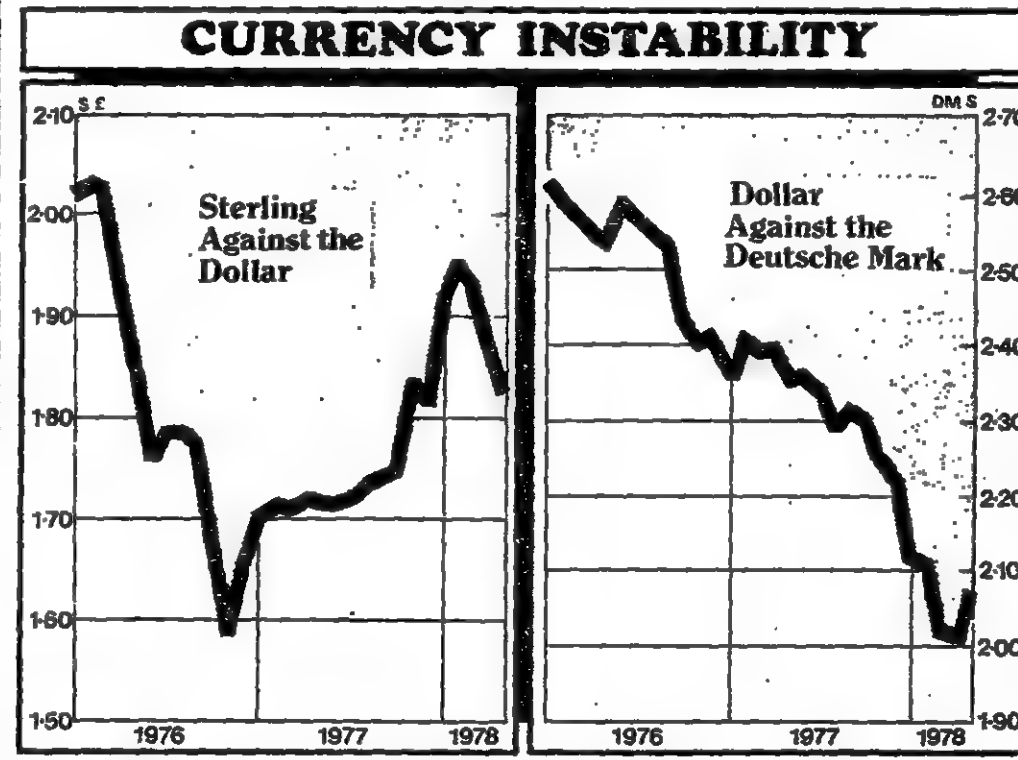
countries like Britain and Italy, whose economic crises they have attributed chiefly to the pursuit of irresponsible fiscal and monetary policies. The view in Bonn has been that pumping money into such poorly-run economies was like pouring so much water down a drain.

It would be fair to expect, therefore, that Germany will demand some assurances from its partners that they will exercise more rigorously disciplined economic management than in the past as part of the price for underwriting any new currency arrangements.

It is precisely these points which concern some other members of the EEC. In London, for example, there would be a considerable reluctance to include sterling in an enlarged snake unless this were combined with a genuine transfer of resources within the EEC. This would effectively amount to a new Marshall Plan with the U.S. role of the late 1940s being taken over now by Germany. But this appears to be some way away from what Chancellor Schmidt is proposing and other countries are less happy about saving Germany from the consequences of its persistent surplus. The most that the U.K. appears to be willing to concede at present is greater consultation on foreign exchange movements within the EEC.

The British view is that the main emphasis should be on stabilising the dollar though there is no common view on how this should be done. The agreement at the Mexico City meeting that the Fund should exercise tighter surveillance over exchange rate practices of member nations begs most of the important questions.

There may not be sufficient time to resolve differences on Chancellor Schmidt's proposals. But there could be a surprising degree of unanimity about the dollar. This may merely be because the U.S. currency has already shown clear signs of stabilising in recent weeks against the stronger European currencies. So while the politicians fret, the market may, as so often, have the final say.



MEN AND MATTERS

Bring back
that vase

Warwick District Council is looking for a seven-ton Roman vase, valued at nearly £250,000. The council is trying to have it brought back to Warwick Castle, whose treasures are being steadily sold off by Lord Brooke. The council has decided to postpone serving a listed building enforcement order, in the hope of arranging a meeting with the earl. He lives in Rome and refuses to discuss the controversy over the "stripping" of the castle.

Last Friday, the Arts Minister, Lord Donaldson, decided to withhold for three months an export licence for a Caravaggio which Brooke has sold to an overseas buyer for £219,000. Already, one of four paintings of the castle-dome by Caravaggio has been lost to Britain. One of a pair has been saved, with the help of a £137,000 grant to the Birmingham Art Gallery from the Victoria and Albert Museum. But Birmingham has only a fortnight left to find £107,000 to save the second of the pair.

Carlo's coup

Italian big business will never look quite the same after the £10m. coup pulled off last week by Carlo de Benedetti, a 43-year-old Piedmontese. Despite the open opposition of the Agnelli family, he has gained the biggest single stake in Olivetti, and becomes its deputy chairman. It is hardly surprising that Il Mondo magazine has nominated de Benedetti "Italy's manager of the year."

The Agnelli, Giovanni and Umberto, hold 7 per cent of the international mechanical-electronics company. Their challenger will hold 20 per cent, after subscribing more than a third of Olivetti's



"Haven't seen anyone dancing round the maypole so far."

impending £40bn. capital increase. This is the second close encounter: for three months in 1976, de Benedetti was managing director of Fiat, but resigned declaring: "I don't want to be a puppet of the Agnelli."

De Benedetti's fortunes are founded upon tanning. He began with a small Turin company in 1972. It grew so fast—from 100 to 1,500 workers in four years—that Fiat, its main customer, took it over; the powerful proprietor was given a 5 per cent holding in the giant car group, with the short-lived managing directorship to boot. It has often been asserted in Italy that the underlying reason for the 1976 break with the Agnelli was de Benedetti's dislike for the deal that gave Libya the second largest single shareholding in Fiat. He has the support of Jewish financial circles and after selling back his Fiat stake, at what was reputed to be a handsome profit, once again mounted an independent enterprise. His new tanning acquisition doubled its turnover from £28bn. to £53bn. in 1976-77.

De Benedetti's horizons widened rapidly and the Olivetti deal was the product of months of negotiating in defiance of the effective boss. Olivetti really had no choice: it is badly in need of fresh funds and in Italy's present state there were no other industrialists prepared to pump in money on such a scale.

Leyland uplift

Praise for British Leyland is scarce these days, but the heavy vehicle division will be able to bask this week in a prestige victory over a main rival. Although many people find the Leyland Marathon II decidedly ugly, beauty is not what counts with juggernauts. Performance. They were greeted in the

Magic new and old

The world's finance ministers, attending the IMF interim committee meeting in Mexico City over the week-end, might have been excused for thinking they had fallen to the wrong place. They were greeted in the

spacious lobby of the El Presidente Chapultepec Hotel by a large sign reading: "Welcome to Walt Disney's Magic Kingdom Club." The ministers were completely dwarfed in significance on Sunday by the Mexican declaration of Children's Day. Faced with the competing attractions of a splendid parade in Chapultepec Park, or a discussion of the interest rates to be paid on SDRs, some members were suspected of quietly swapping their IMF identification tags for Mickey Mouse buttons.

Something of this Disneyland fantasy engulfed a discussion about the projected size of the Japanese trade surplus this year; the large delegation from Tokyo went into a huddle. There was earnest consultation, plus the raising and lowering of Ministerial spectacles; after five minutes, the Japanese admitted they were unable to estimate their own trade surplus.

As a contrast to such obscurities, there was much enthusiasm among the Finance Ministers for yesterday's excursion to the classic Toltec and Mayan ruins at Chichen Itza in the South-eastern State of Yucatan. Denis Healey was well to the fore. He seemed undeterred by the fact that Chichen Itza's most notable feature is its celebrated sacrificial well. He may have been consoled by the fact that, according to legend only beautiful virgins were sacrificed to the gods by being thrown into its deep waters.

Listen carefully...

During a private seminar arranged last week by stockbrokers Fielding Newson Smith a talk about the role of nuclear power stations was given by Coal Board chairman, Sir Derek Ezra. At the end, a member of the audience asked: "Are these nuclear stations coal or oil-fired?"

Observer

BRITISH & EUROPEAN PROPERTY

FULLER PEISER offer a complete property service to industry and commerce throughout the United Kingdom and Western Europe

FULLER PEISER

Chartered Surveyors
3-4 Holborn Circus
London EC1N 2HL
Tel: 01-353 6851
Telex: 25916

Chartered Surveyors, Valuers, Agents and Managers of Industrial and Commercial Property, Rating and Compensation Surveyors, Plant and Machinery Valuers, Investment, Finance and Development Consultants.

FINANCIAL TIMES SURVEY

Tuesday May 2 1978

Mechanical Handling

How can you pick up new business with your hands full?

Even to keep to your present profit levels, today you need to handle more materials than ever before.

Can your present materials handling system cope with that—and with the increasing amount of new business around?

The time to find out is now—not when you've already got your hands full.

And you can find out for nothing, from Britain's—and Europe's—largest materials-handling equipment group.

Lansing.

So give your local Lansing Engineer a ring today.

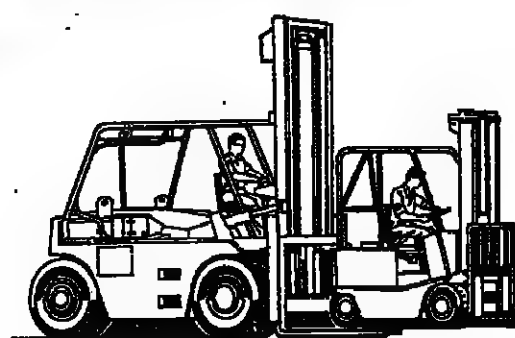
He's a trained specialist in everything from small hand pallet-trucks, to huge 40-tonne fork lifts. From reach trucks to turret trucks and order-pickers. So he can pinpoint your needs with precision.

But he's more than just a lift truck man. He has a wealth of experience in the whole concept of modern materials handling.

He could give you tips on improving your storage and through-flow methods, if you ask him. And the best ways to rotate stock. And whether it will pay you best to buy, rent or lease the lift trucks you need. And how two into one *will* go when you use specialised equipment, like turret trucks.

Don't expect a whole survey from him (there's a special Lansing division for that, able to offer the best in the business).

Do expect expert, helpful advice. That's his job. We've talked enough. Contact your Lansing man now, and talk to him. It could be later than you think.



LANSING
BAGNALL HENLEY
We do more for you

General Enquiries: Basingstoke: 0256 3131. Depots: Bowburn: 0385 770313. Bristol: 0272 711261. East Kilbride: 035-52 33601. East London: 01-987 2090. Edenbridge: 0732 862671. Enfield: 01-804 7474. Ilkeston (Derby): 0602 328781. Isleworth: 01-568 4681. Leeds: 0532 530231. Pensnett: 038-44 78141. Redditch: 0527 28116. Warrington: 0925 51177.

MECHANICAL HANDLING II

Like most capital equipment suppliers, makers of mechanical handling equipment are suffering from the sluggishness of industrial investment in the developed world. Elsewhere, among the newly rich nations, there are clearly opportunities to be seized, but world competition is intense and for the U.K. manufacturers the answer may lie increasingly in closer co-operation in joint ventures.

Keys to success in world markets

IF THERE is a common thread linking all the various sectors of the mechanical handling industry, ranging from pedestrian-operated lift trucks to heavy dockside cranes, from small overhead conveyors to bulk handling systems for iron ore, it is the need for equipment manufacturers and contractors to make themselves less dependent on the home market and more international in their outlook. To do this, they have to upgrade the technical performance of their products and systems and improve their marketing organisation, a task which may require co-operation with other companies and perhaps stronger financial backing.

This has to be done at a time when international competition, reflecting the generally depressed state of the world economy, is fiercer than ever before. Japanese, German and other competitors, most of them already well-established exporters, are battling for a bigger share of overseas markets, including the U.K. itself.

Few engineering companies, however successful in exporting, can insulate themselves from the ups and downs of domestic business. They need this is one of the issues which the home market both as a base of operations and as a

showcase for foreign customers, where they can demonstrate their products and processes in operation. This applies especially to materials handling systems, where the ability to engineer and instal a complete contract is at least as important as the manufacture of hardware. In bulk handling and in the heavy crane industry the nationalised industries have an important role to play, since they are the dominant purchasers in the U.K. market: their ordering policies can influence, directly and indirectly, the attitudes of foreign buyers.

In certain fields, such as the preparation and handling of coal and some aspects of postal mechanisation, the techniques developed by British nationalised industries have a good reputation throughout the world and the manufacturers can take advantage of this. Several of the nationalised industries provide consultancy services to overseas authorities and this, too, can lead to orders for U.K. companies. But there is undoubtedly scope for greater co-operation between nationalised industries and their suppliers to promote exports of British hardware and know-how: certainly scope for the export of specialised custom-built cranes, the premium is on sophistication and high added value.

Industrial strategy, are tackling. In parts of mechanical handling the emphasis in overseas business is on engineering know-how and on contract management skills rather than on the supply of hardware. The starting point is often the ability of a major engineering group like GEC or Davy International to win a large contract for a power station or a steel works; this then leads to a separate contract, often of considerable size, for the materials handling system.

Insist

In both the main project and in the materials handling part of it the client may insist on the maximum amount of local manufacture: the supply of hardware from the U.K. may be confined to special components and machines of greater complexity than available in the overseas country concerned. For the same reasons the crane makers rely to a considerable extent on licence arrangements whereby most of the crane is made locally and only a few key components supplied from the U.K. While there is certainly scope for the export of specialised custom-built cranes, the premium is on sophistication and high added value.

In view of the importance of large contracts and package deals, doubts have been expressed about whether the British mechanical handling industry is well enough organised, compared to its overseas rivals, to enlarge its share of export business. There is a view that, in contrast to what is thought to be the practice in "Japan Inc.", British companies spend too much time cutting each other's throats and not enough fending off the foreign competition. It is also said that some small manufacturers of handling equipment, lacking the resources to attack world markets on their own, need to be brought together into consortia which can undertake large contracts.

Some such consortia do exist and have achieved success. There is possibly a danger that the creation of too many competing consortia could lead to a diffusion of the selling effort. More promising in certain sectors is the creation of international groups to handle very large materials handling installations; these can be helpful both in spreading the risk and in mobilising skills which are not available in the U.K. For the U.K. cannot hope to be fully self-sufficient in every branch of mechanical handling. In some products the domestic demand has not been big

enough to permit the establishment of U.K. manufacturers on a viable basis; this applies, for instance, to tower cranes and to escalators, most of which are imported from the Continent. Those who advocate import-substitution campaigns have to recognise that in this field, as in most branches of mechanical engineering, there is a high degree of interdependence between the industrial countries.

As far as hardware is concerned, international trade is most fully developed in those products which are relatively easy to transport. Mobile cranes (normally regarded as part of the construction equipment industry rather than mechanical handling) is one example; fork-lift trucks another. The European lift truck industry is characterised by severe competition, with all major "national" companies competing strongly in each other's domestic market and quick to take advantage of any shortfall in supplies. In 1973 and 1974, for example, when the U.K. market expanded very rapidly and local manufacturers ran out of capacity, imports from Continental and from Japan quickly filled the gap, establishing a stake in the market from which they have been difficult to dislodge.

GEC subsidiary.) But Otis's U.K. plant is part of an integrated European operation. The same applies to industrial trucks. For instance, Eaton, the U.S.-owned company, manufactures electric trucks in the U.K. and internal combustion engine trucks in Germany; there is also a rationalisation of component production between the two plants. Demag of West Germany, a powerful contender in cranes, hoists and other branches of mechanical handling, has a manufacturing plant at Banbury in the U.K.

The presence of the multi-nationals is a source of strength for the mechanical handling industry; there is no case for the nationalised industries to discriminate against them in their purchasing policies, as is occasionally suggested by British-truck industry is characterised by severe competition, with all major "national" companies competing strongly in each other's domestic market and quick to take advantage of any shortfall in supplies. In 1973 and 1974, for example, when the U.K. market expanded very rapidly and local manufacturers ran out of capacity, imports from Continental and from Japan quickly filled the gap, establishing a stake in the market from which they have been difficult to dislodge.

SALES OF MECHANICAL HANDLING EQUIPMENT IN THE U.K. (£m. 1976)

Conveyors, aerial ropeways, etc.	168.6
Of which	
Bulk handling equipment	129.9
Unit load handling equipment	38.2
Other	0.5
Cranes and transporters	169.3
Of which	
Mobile cranes	74.9
Other cranes, including parts	94.4
Lifts and escalators	76.2
Lifting and winding devices (including hoists)	73.5
Industrial trucks and tractors	192.9
TOTAL	679.5

Source: Business Monitor.

of co-operative arrangements which may be appropriate, but success in overseas markets depends in the end on the supply company's ability to solve its customer's materials handling problems, whether it is through the sale of a fleet of fork lift trucks, the design of a baggage-handling system for a new airport, or the installation of a large conveyor system for an open-cast coal mine. It is possible that as these boundaries between some of the different sectors of the mechanical handling industry will tend to become less rigid; manufacturers of discrete components or machines may find themselves in the role of systems designers and contractors, embracing a wide range of processes and techniques. What is certain is that the demand for the problem-solving skills of the mechanical handling specialist will continue to grow.

Geoffrey Owen

22 years ago we made the first telescopic truck cranes.

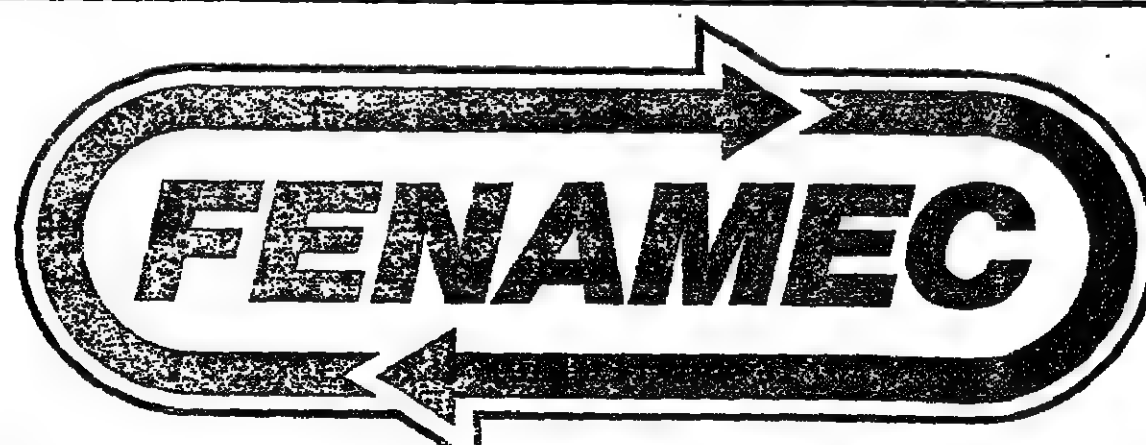
Today we just make the best.



Hydra Trucks
from COLES the cranemakers

Coles Cranes Limited, Harefield, Uxbridge, Middlesex UB9 6QG
Tel: Harefield (059 582) 3777 Telex: 21619 Cables: COLES UXBRIDGE

ACROW



If the name still doesn't convey anything to you, you're a year out of date!

At the beginning of last year the name didn't exist. Now it's bred a new word. Fenamecisation. This stands for 21 years' conveyor system experience.

In this last year, Fenamec have moved a good deal. There is the revolutionary Epiradial Accumulation Conveyor in use at home and overseas; a new standard heavy duty pallet conveyor range; Rollax, the most advanced and simple high-density pallet storage and transportation system, acclaimed for years in Europe.

Our big project know-how is being cost-effectively applied to small systems and we provide the best conveyor applications engineering in the business.

It's the name that conveys everything.

Fenamec Limited, Sutton Road, Hull, HU8 0DR
Telephone: 0482 781211
Materials Handling Division of the Fenner Group

Complicated

The pattern of trade is complicated by the presence of the so-called multinational companies, which are often exporting from, and importing to, a particular country on a substantial scale. In the U.K. and some British companies, for example, Otis, have gained access to these techniques through licence deals. In developing countries partner-ship with local companies are often a necessary condition for doing business.

There is, in short, a variety of opportunities for the U.K. Other forms of collaboration are possible, involving the exchange of know-how. Certain automated storage and retrieval systems have been more highly developed in other countries South Korea, the oil-rich countries of the Middle East, and the more advanced nations of Latin America, are investing strongly in infrastructure projects and in heavy industry; the suppliers of bulk handling systems, cranes and other products are devoting much of their self-

Evolving a strategy

ANY ATTEMPT to define an industrial strategy for mechanical handling must start by subdividing the industry into its constituent sectors. For mechanical handling is really a collection of separate industries, each with its own problems and opportunities. While there are some common elements between the sectors, it makes little sense to draw up a comprehensive programme for mechanical handling as a whole. Thus the Sector Working Party (SWP) for mechanical handling has set up sub-committees for the four main sectors—conveyors (including bulk handling and unit handling systems), lifts, cranes, and lifting and winding equipment including hoists. A separate SWP looks after industrial trucks, a compact and clearly defined sector. (The cranes sub-committee of the mechanical handling SWP does not include mobile cranes, which have been logically, put together with the construction equipment SWP.)

The objective of each SWP is to help the manufacturers in its sector to improve their performance and increase their international competitiveness. Some of them have worked out precise targets for gains in exports and for reductions in the share of the domestic market held by imports. But the emphasis of much of the SWP's work is on identifying specific obstacles to better performance and devising ways in which those obstacles can be removed.

In industrial trucks, for instance, the manufacturers were badly affected four years ago by the inability of their component suppliers to keep up with demand; there has been continuing concern over long lead time for such items as hydraulic pumps and valves, electric motors and axles. The SWP has been seeking to develop a better "interface" between the truck manufacturers and their suppliers, involving the provision of more detailed forecasts of demand and more accurate estimates of likely call-off.

A pointer in this direction is the move by a group of mechanical handling companies to establish an office in a major developing country where large orders for materials handling equipment and systems are likely to be placed in the near future; the office is intended to provide both a listening post and a means of maintaining contact with clients and contractors. If the experiment is successful it may be extended to other markets.

Potentially one of the most useful roles of the mechanical handling SWP is in improving relationships between the nationalised industries and the materials handling companies. For many companies in this sector, especially those dealing with bulk handling contracts, the nationalised industries are overwhelmingly the most important customers in the U.K. market. They have often been criticised for neglecting the needs of potential overseas customers in their specifications and their methods of procurement, but there is evidence that a more constructive dialogue with their suppliers is now in progress.

Discussions have taken place with the Nationalised Industries Export Group and with individual corporations, such as British Steel, which are actively involved in providing consultancy services to overseas companies and governments. Some domestic manufacturers have been known to complain that the advice offered is too impartial in relation to the choice of equipment suppliers. Whether that criticism is fair or not, British technology as developed by the National Coal Board and others does have a high reputation overseas; this can be exploited more fully to promote exports by U.K. manufacturers.

Information

Another area in which the SWPs have been active is in the supply of better and more comprehensive information about world markets. Last year's progress report on industrial trucks contained a considerable amount of information about production in the main industrial countries and shares of world exports held by the major manufacturers. In conveyors the SWP has commissioned an overseas market survey; this is jointly financed by government and the industry and will examine, among other things, customer attitudes to British products and the action which would be appropriate for British manufacturers.

Ideally, this is the kind of work which ought to have been undertaken by trade associations on their own, without prompting from the SWP. But the fragmented structure of trade associations in this country and the generally low level of funding which they enjoy from their industries have made it difficult for them to embark on the kind of co-operative self-help programmes which the SWP has been promoting. There are signs that bodies like the Mechanical Handling Engineers Association are becoming better supported and more active.

As the latest progress report from the mechanical handling SWP puts it, "exhaustive examination of many different approaches has failed to reveal any measures of a kind which could make a once-for-all transformation in the performance of the sector." It is possible to identify specific problems, whether arising from Government policy, inadequate export financing facilities or purchasing decisions of nationalised industries, and perhaps to do something about them. But the SWP has no magic wand with which to improve efficiency in individual companies.

The mechanical handling SWP has set up a Company Action Group (CAG) to concentrate on actions which can be taken at company level. The hope is that companies will set up their own action committees to study how the recommendations of the SWP can be implemented; this has been done in one or two cases. Some management members are disappointed that the apparent commitment of union officials on the SWP is not reflected in the attitudes of local officials and shop stewards. But however good the communications on both management and union sides, there are limits to what the SWP can do. It can exhort, inform and advise; but the mainspring for improved performance has to be found within the company.

Geoffrey Owen

Lift trucks facing slower growth

THE EUROPEAN lift truck industry appears to be reaching a stage of maturity. Even when a normal pattern of economic activity is resumed, manufacturers cannot expect a return to the annual growth rates of 10-15 per cent. which they achieved in the period between 1965 and 1974. Much of that growth was based on the substitution of lift trucks for manual handling methods. Although there is still scope for greater mechanisation in certain countries, such as Italy and Spain and to a lesser extent France, in mature markets like West Germany and the U.K. the increase in demand will be related more closely to the growth of GNP.

At the present time the industry is recovering slowly from a deep recession. In the U.K., for instance, the number of units sold fell from around 20,000 in 1974-75 to less than 14,000 in 1976. This year should see a continuing slight recovery but for the European market as a whole manufacturers have had to scale down drastically the growth forecasts they were making three years ago. "We had expected a total European market of 130,000 units by 1978 or 1979," one manufacturer comments, "now it will be into the '80s before that figure is reached." Last year lift truck sales in Europe were estimated at about 100,000 units.

The industry is operating at no more than 70 per cent. of capacity and there are reports of severe price-cutting. Given that the share of the market held by Japanese imports is already about 15 per cent. and probably increasing, these competitive conditions are bound to put pressure on the weaker manufacturers and perhaps lead to further rationalisation in the industry.

It is a surprising feature of the European market that no one company accounts for more than about 10 per cent. of total sales, whereas in the U.S. a market of about the same size, the structure is much more concentrated: the two leaders, Clark

and Eaton, both have market shares in the region of 20 per cent., and Hyster is not far behind.

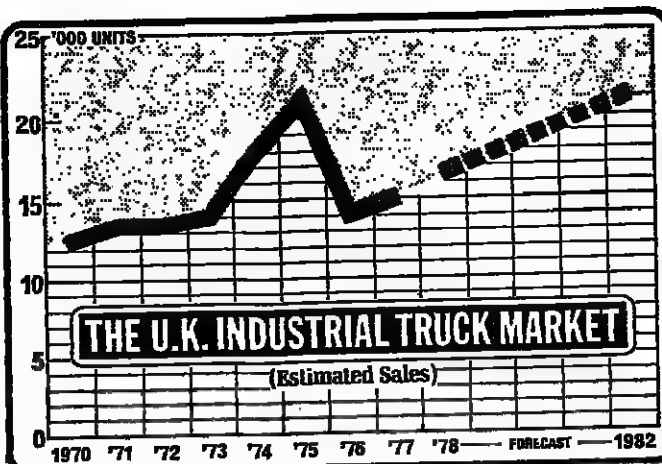
Another way of putting the same point is that there are probably six or seven manufacturers in the world with a total capacity of well over 25,000 trucks a year and none of them is European; the big producers include the leading U.S.-owned companies, Toyota and Komatsu in Japan, and Balkancar in Bulgaria. The largest European rival is Linde in Germany, especially now that its European production is supplemented by its stake in the U.S.; last year it acquired 58 per cent. control of Baker Material Handling, the Otis truck subsidiary.

There are obvious economies of scale in this industry: one observer reckons that the big Japanese producers have a cost advantage of between 10 and 20 per cent. over a European company manufacturing between 5,000 and 10,000 trucks a year. But this does not necessarily mean that the European industry will soon be reduced to a small number of big-volume producers.

Assembly

For one thing, it is to a large extent an assembly industry. It is not too difficult for a small engineering company to buy in the main components, price the finished product keenly and sell in a restricted market. According to some estimates there are more than 100 lift truck manufacturers in Europe, with Italy having the largest number of very small producers.

For another, Europe is still a collection of national markets, with different regulations and different customer preferences. The big national companies such as Fiat in Italy, Linde and Jungheinrich in Germany, Fenwick in France, Lansing and Coventry Climax in the U.K.—all have a strong position in their national markets. It is extremely difficult either for the Japanese or the American multinationals to dislodge them. The American-



The U.K. market fell sharply after the 1974-75 boom, and some manufacturers believe it will take another four or five years before sales return to the peak level.

owned companies have concentrated their European truck assembly on one or at most two plants—Caterpillar at Leicester, Clark at Mulheim in Germany, Eaton at Wednesfield and Velbert in Germany, Hyster in Scotland and Holland, Allis-Chalmers in France—and they are strong contenders in most markets. But there is no sign that they are about to dominate the industry.

Market shares in this business do not change dramatically from one year to the next. There is little scope for technical breakthroughs. While the quality of the product is a

major selling point, the service back-up is perhaps even more important. What is tending to happen is that as the major manufacturers seek to strengthen their market position, they are extending their range into sectors hitherto served by specialists. In the warehousing market, for instance, Eaton recently introduced its narrow aisle reach trucks, a sector dominated by Lansing and Jungheinrich.

Yet there is always likely to be room for smaller companies to concentrate on specialised machines where the volume is too small to attract the big manufacturers. As in the con-

struction equipment industry, manufacturers have to choose between competing across the board, with a wide range of products manufactured in relatively high volume, and specialising in a narrow segment. Yet in practice the choice of strategy is rarely as clear-cut as that. Although casualties and some mergers (like the Lansing-Henley and Coventry Climax-Conveyancer deals in the U.K.), the structure of the European industry will remain more fragmented than in the U.S. for a long time to come.

Emphasis

The emphasis will be on improving manufacturing efficiency, strengthening sales and service networks, and looking for new markets. There is scope for increasing exports of trucks to countries outside Europe. For example, the oil-rich nations of the Middle East, investing heavily in infrastructure projects and seeking to modernise their warehousing and distribution networks, have been important customers for lift trucks in the last few years. But these are markets where the Japanese, especially Toyota,



Above: Bonser Engineering's rough terrain lift truck, aimed specifically at the construction, plant hire and agricultural industries. Below: Hercules Hydraulics has designed this three-way tipping skip for attachment to its lift trucks.



G.O.

"So you want us to make a cheaper lift-truck? What do you want us to leave out?"

From the prices of our 4,000-7,000lb capacity diesel, LPG and electric lift-trucks, nobody would take us for a cut-price concern.

Although, in fact, making a cheap lift-truck would be quite a simple matter.

For a start, we could leave out the torque-converter and put in an ordinary manual gearbox and clutch. In terms of long life, ease of use and low operating costs, it wouldn't be in the same league; but it would take a hefty chunk off the purchase price.

Instead of laying out the controls like those of an automatic car, to help the driver react the right way in an emergency, we could put them wherever it worked out cheapest.

We could cut corners on the steering. Leaving out our twin-cylinder Hydrostatic design would save money, instead of saving trouble.

The same goes for the hydraulic system. Working on a lower pressure than most, it saves a lot of burst hoses, leaking seals and damaged pumps. But it means a little more in capital outlay.

Lastly, we could stop putting in what really makes the money mount up. Time.

Years of design time that's brought results like unitary construction, so you don't have to take the whole truck to pieces to replace even a major component.

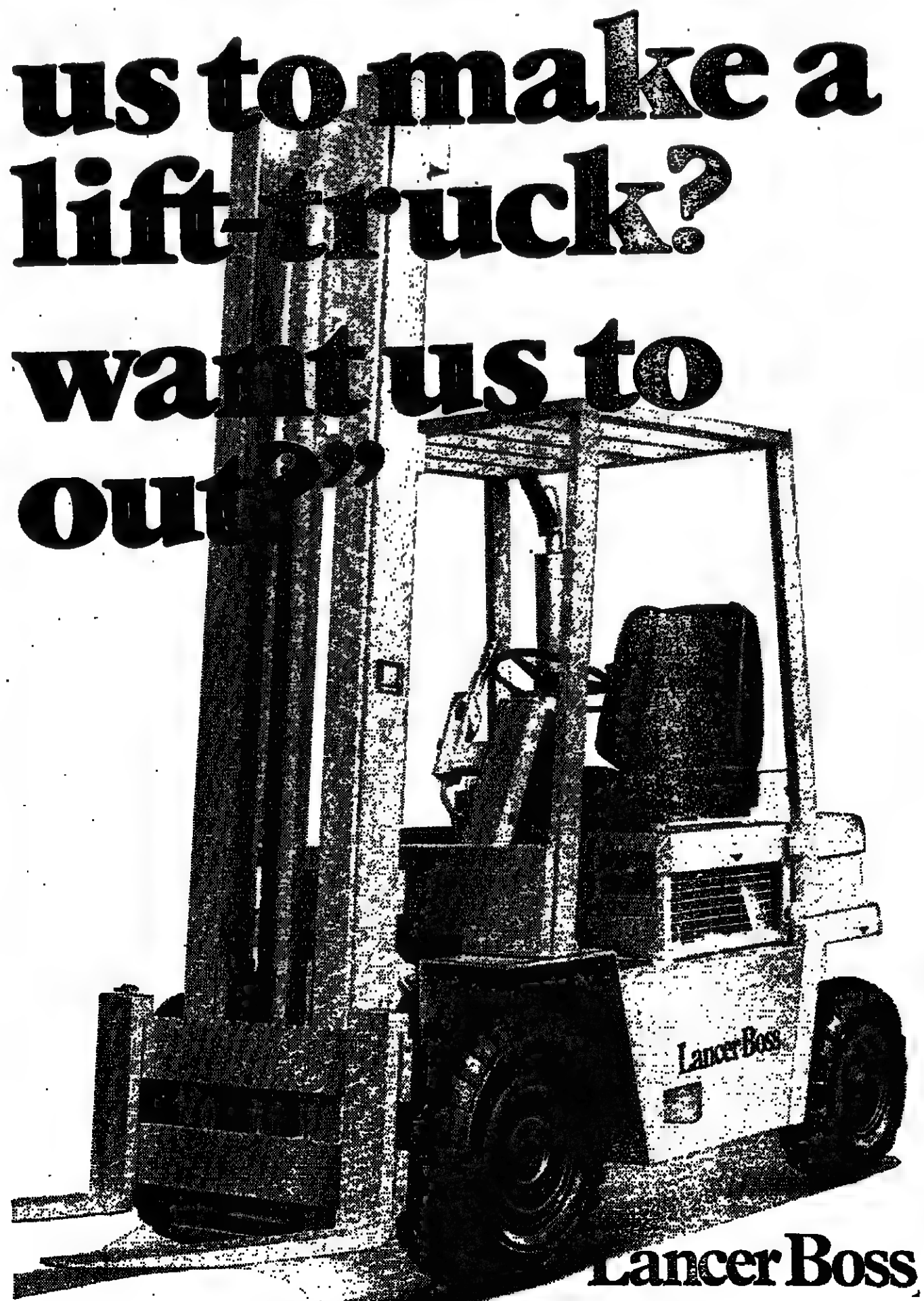
And our long wheelbase design, which minimises counterweight overhang. It makes our lift-trucks more stable, especially when unladen and driven at speed, which is when most accidents occur.

Features like these have won us three Design Council awards, two more than any of our competitors.

If we left out even a couple of them, we could make a lift-truck highly competitive on price terms alone.

But then, it just wouldn't be a LancerBoss.

If you'd like to know more about what we refuse to leave out of our lift-trucks, write for our free 'Reasons Why' booklet to: LancerBoss Ltd., Group Publications Dept., Leighton Buzzard, Beds. LU7 8SR.



LancerBoss

THE WORLD'S WIDEST RANGE OF LIFT-TRUCKS, CAPACITIES 2 TO 60 TONS, FRONT LIFTS, SIDE LIFTS, CONTAINER HANDLERS. BUY OR CONTRACT HIRE FROM LANCERBOSS LTD., LEIGHTON BUZZARD, BEDS. LU7 8SR. TELEPHONE: LEIGHTON BUZZARD (05253) 2031.

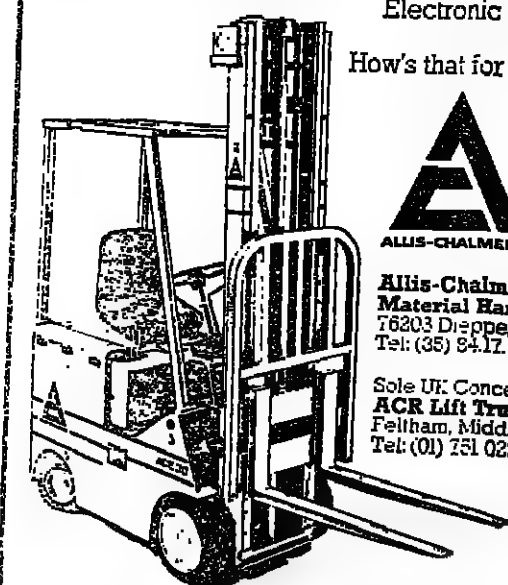
MECHANICAL HANDLING IV

Crane makers need to broaden their scope

Who designed the first electronic lift truck?

Allis-Chalmers...
...who still lead the world in the design of lift truck drive control systems.
The reliability of their Actronic system enables Allis-Chalmers to offer the best guarantees of any manufacturer in the industry—5,000 hours on drive motors and 2,500 hours on electronic components.

How's that for confidence!



Allis-Chalmers
Material Handling Europe
76203 Dieppe, France
Tel: (33) 8417163

Sole UK Concessionaires:
ACR Lift Truck Limited
Feltham, Middlesex
Tel: (01) 891 0222/5

The world's leading manufacturer



of solid state speed controls for electric vehicles

Sevcon specialises in the speed control of electric vehicles. Ever since the invention of the motor, Sevcon has pioneered the development of solid state chopper converters for the speed control of electric traction motors.
Sevcon controls are used on Electric Fork Trucks, Electric Buses, Mining Machinery, Electric Cars, Locomotives, Submarines, Baggage Tractors, Electric Trains — in where electricity is used to move people or materials. Over 100,000 Sevcon controllers are presently in use throughout the world.
SEVCON is a Division of TECH/UPS Incorporated



Sevcon

Technical Operations Ltd.
Kingsway, Team Valley
Gateshead, NE11 0QA
Telephone 0632-878516
Telex 53328

OUR MEZZANINE FLOORS RAISED STORAGE PLATFORMS

can increase your factory/office space instead of moving to larger premises.



PRICES FROM £150 SQ. FOOT

Constructed in accordance with B.S.449
CONSULT THE MANUFACTURERS for a second to nine service and a complete quotation. HOME COUNTRY STORAGE & MATERIALS HANDLING LTD., 2, Station Industrial Estate, Burnham-on-Crouch, Essex, SSO 7LQ. Tel: 0206 702111, 702113, 3 lines.

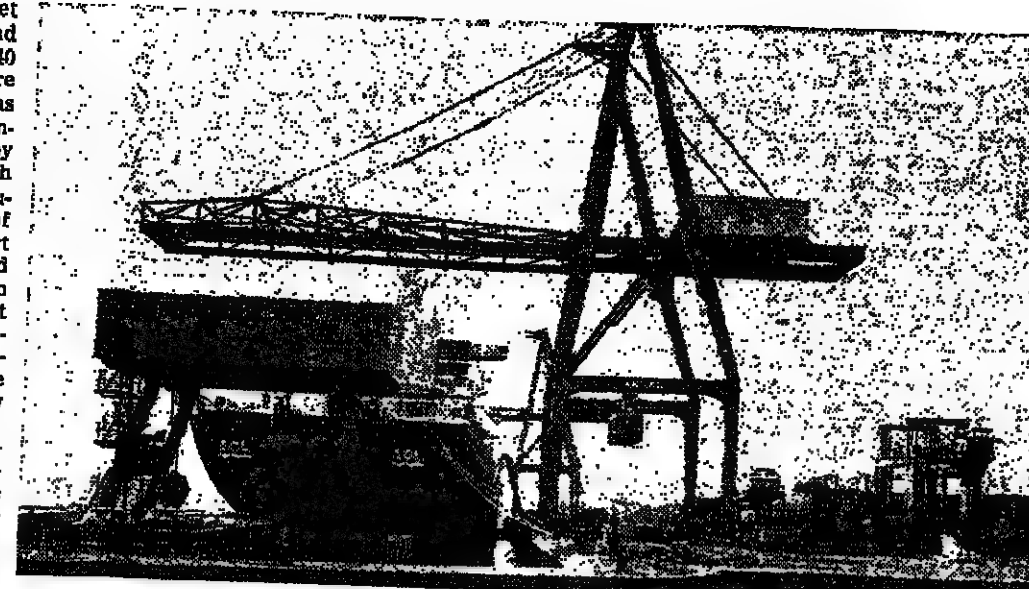
LIKE MECHANICAL handling tracts for British Steel and the Morris is the U.K. market as a whole, the crane industry independent steelmakers which leader in electric overhead tinct categories which should keep the factory busy at travelling cranes and about 40 almost be regarded as separate but it is taking steps to diversify per cent of all its orders are industries: it is unusual for its product range and develop exported. In recent years it has a company to compete across new export business.

In the same field Clarke Chap- it makes collaboration deals with man (now part of Northern local steel fabricators to manu- Engineering Industries) has facture cranes on the basis of been coping with the recession in steel and in shipbuilding, the specialist machinery and two of its major outlets, by components from the U.K. and manufacturing other products, this way shipping costs are kept taking on sub-contract work and down and exports of high value- seas business: is available. ments of this kind with more order for two floating cranes than a dozen countries have now as part of the recent contro- cal recurring theme in mechani- tract and it has a variety of panies to develop their expertise as contractors, taking responsi- bility for complete installations. This is an area where Morris is increasing its marketing effort.

Collaboration

Again in common with the bulk handling contractors, the heavy crane makers need to plant closely with the process plant contractors, who will frequently place, or advise the client on where to place, orders for cranes as part of a new steelworks or chemical plant. A recent example was the ordering of two cranes for an ethylene plant in Texas from Wharton: the order was placed through Stone and Webster, the chemical engineering contractor. Wharton, a specialist in heavy cranes, is a subsidiary of Williams Hudson group which is a leading producer of industrial cranes.

It is the connection with process plant contracting which provides part of the logic behind Davy International's acquisition of Herbert Morris. Morris has been primarily a manufacturer of electrical overhead travelling cranes for industrial applications, but its technical and marketing arrangement with MAN of Germany has served to extend its range into the heavier makers are highly dependent in the domestic market on the arrangement Morris may manufacture some 80 cranes under per cent of orders come from licence in the U.K. and it may this source. The slow-down in the British Steel Corporation's man company for certain overseas projects where both light and heavy cranes are required. The association with Davy, one of the world's leading process plant contractors, seems certain to lead to some spin-off for Morris in hardware orders: at the very least it will increase its credibility when bidding for major contracts around the world.



At a container berth at Southampton (British Transport Docks Board) a Paceco-Vickers crane works over the side of a ship. On the right is a Clark straddle carrier.

installation in the U.K. is at the Volkswagen parts depot in Milton Keynes. This is another field where Demag will be competing with Herbert Morris, which is a member of a newly-formed consortium to sell automated warehousing systems.

Other contenders in industrial cranes include Motterson, J. H. Carruthers (a Burmah subsidiary whose Monobox cranes have had considerable success in export markets), John Smith of Keighley (owned by T. W. Morris, Motterson and Clayton Crane and Hoist).

The specialist crane manufacturer and the specialist component supplier should always

G.O.

Conveyors rely on co-operation

THE CONVEYOR business falls into two distinct categories—the bulk handling of materials like coal and iron ore and the unit handling of components and products in factories, warehouses, airports and post offices. But one key ingredient is common to both. This is the ability to design, engineer and install a complete handling system. Few customers—the National Coal Board is one exception—design their own systems; most rely on the materials handling contractor. He may supply equipment from his own factories—the proportion of in-house manufacture varies widely from company to company and from project to project—but his primary skill lies in putting together a package that moves materials or components efficiently and economically.

Bulk handling contracts normally form part of large-scale projects—the construction of a power station or an integrated steelworks, or the opening-up of a new mine. Sometimes the handling contract will be placed separately by the client or by the engineering contractor responsible for the project as a whole. Sometimes it will be incorporated in the groups—GEC Mechanical Handling, Babcock and Wilcox, the

various subsidiaries of Davy Wrightson), and Simon Carves, a subsidiary of Simon Engineering. They have the financial resources to tender on their own for large handling contracts frequently do so.

But it is also possible for smaller companies, which have the advantage of flexibility, to act as main contractor in certain projects. One example is Don Valley Engineering, a private company based in Doncaster, which recently completed a materials-handling installation worth nearly £2m. for a new phosphates mine in Jordan; the contract, completed in ten months, was the largest export order won by the company.

U.K. demand for bulk handling systems comes mainly from the nationalised industries, especially the National Coal Board and British Steel. The cutbacks in steel investment have hit the industry hard: although some large projects are proceeding, heavy costs have been incurred in tendering for orders which have now been deferred indefinitely.

This has obliged the conveying contractors to redouble their scale, and in which U.K. com-

CONTINUED ON NEXT PAGE

Rapistan Lande integrated conveyor systems

Floor 4 - Edmund House - Newhall Street.
Birmingham B.3 3E.W.
Phone: 021-236-8575 Telex 3377 40

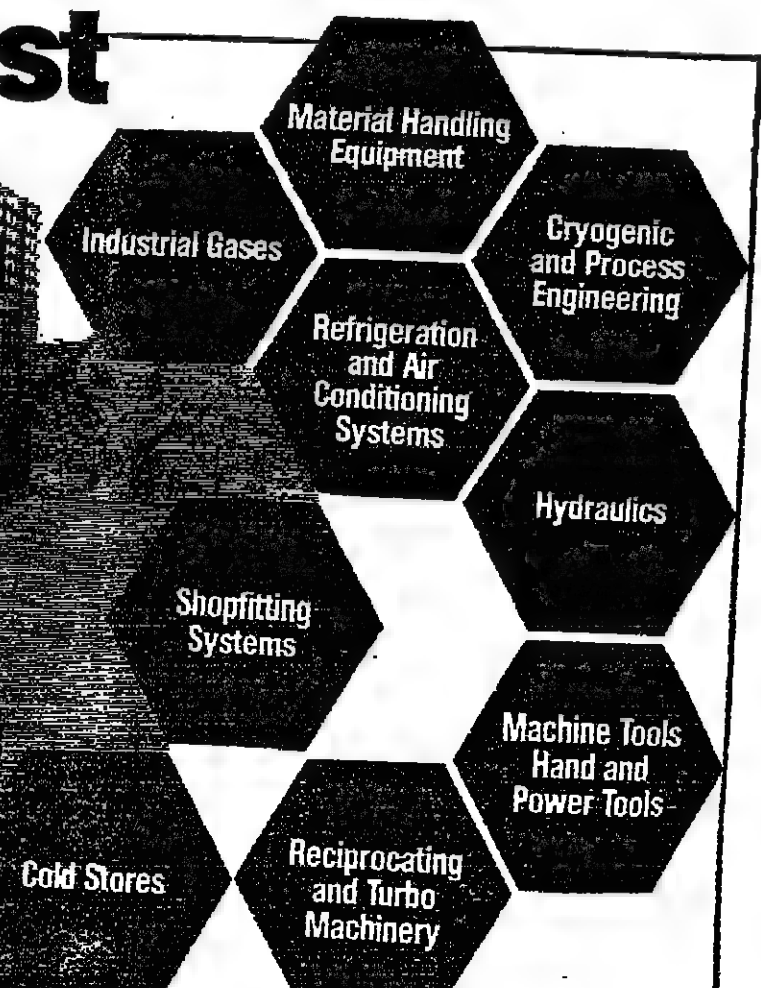


So that we can quench your thirst more quickly

Linde cares. For Linde forklift trucks improve productivity. They transport drinks or timber, concrete paper — the most diverse goods. In industry and trade. Linde forklift trucks are technically advanced and are easy to operate. They are available with several types of drive system. With lift truck capacities from 1.0 to 7.0 tonnes. Linde forklift trucks — the ultimate choice.

But Linde does not only build forklift trucks. The Linde group are in the forefront of the capital goods and services sectors, with a comprehensive and forward looking range of services for meeting high quality requirements. Leading the way in development and technology Linde have a turnover DM 2,100 millions, with a workforce of 19,000.

Linde AG, Wiesbaden
Represented by:
Linde Hydraulics Ltd.
Nuffield Way
Abingdon Oxon
Telephone (0235) 22828, Telex 837477



مكتبة الامم

MECHANICAL HANDLING V

Better outlook for financing

THE IMPROVED climate for U.K. business in the past six months, with the decline in inflation rates easing the liquidity problems of many companies, means that more cash is becoming available for capital outlays. This applies to purchases of mechanical handling equipment as much as any other.

There are basically three finance options open to companies. There are the medium-term such as the bank loans, hire-purchase agreements, contract hire or leasing, while more long-term capital can be raised by equity or loan stock issues. The company can also finance the purchase from internal resources.

Borrowings from the banks on a medium-term basis is clearly attractive at the moment. Interest rates are still low by recent standards and a prime borrower can now get money at a rate of one or two points above base rates, which comes out at 8.5 or 9.5 per cent. Banks are also, according to their recent evidence to the Wilson Committee investigating the City, brimming over with money which they would like to lend to industrial customers. However, it is as well to remember that interest rates can increase sharply, and now that they are an instrument of monetary control, will tend to be raised far earlier in the upturn of the business cycle than hitherto. For this reason there should be caution in the amount of commitment to the banks for extended credit.

Many of the smaller companies may not be in a position to take advantage of the current cheapness of bank borrowing anyway. Furthermore, it can sometimes be an advantage to

take out a fixed rate of medium-term debt, since the company is then in a position to make accurate budgeting, which is essential to keep control of cash flow projections. A hire purchase agreement or some form of leasing or hiring arrangement would be at a fixed rate over a medium-term and these facilities can be obtained from the larger finance houses or in some cases through the manufacturers themselves.

Increase

The leasing industry has been growing steadily and strongly for the whole of the decade. In 1977 it reported its best year ever. Figures for member companies of the Equipment Leasing Association (ELA) which account for about 90 per cent of all finance leasing business transacted in the country show that £875m. of new assets were bought for leasing to industry last year. This was an increase of more than 50 per cent on the 1976 figure of £421m. and compares with a 1973 figure of £130m.

This rate of growth was shared by the category which covered the mechanical handling industry. Plant and machinery acquired for lease last year totalled £198m. and the total on lease at the end of last year was £753m. This total makes plant and machinery the most important sector for the ELA. The next most important category in terms of total assets on lease is computer and office equipment, with £467m., followed by ships with £405m. and commercial vehicles with £363m.

Announcing these figures in

March, Mr. Stuart Errington, the ELA chairman, said: "The leasing industry is poised to play an increasing role in the provision of medium-term finance to assist the U.K.'s economic recovery."

He went on: "Even allowing for inflation these figures show a remarkable increase in the amount of investment by industry through leasing. The growth in leasing over the past several years is the result mainly of the growing recognition by industry of the special attributes of leasing. Both large and small companies have benefited and the leasing industry stands ready to assist further the upturn in industrial investment widely forecast for 1978. Provisional figures show that industrial investment grew by some 24 per cent in 1977, and so the share taken by leasing (the value of which has grown by 50 per cent) of all investment has by any standards very significantly increased."

Both leasing and hire purchase give the company concerned assurance of finance over an agreed period of time and at a fixed price. The basic difference lies in the tax treatment. For this reason it is the particular tax position of the company which governs just which of these financing methods is the most attractive. Guidance on this is always available from the finance houses themselves, some of which have produced booklets on the subject.

Under a hire purchase agreement the user of the goods becomes the legal owner of the goods when the final payment has been made. But for taxation purposes the company is treated as if it is the outright owner

from the time of taking on the equipment. This means that the company is able to take advantage of the whole of the 100 per cent first year allowance just as it would if the purchase had been made for cash. By the same token if the company can qualify for any regional development grants these again would immediately become due. Of course, the company needs to be earning sufficient profits to offset the allowance against.

Suitable

Leasing arrangements are more suitable to the company that is not in a position to take advantage of the 100 per cent allowance. Under a leasing arrangement the lessor remains the owner and at no time does the ownership pass to the user. As such, the finance house, or any other form of lessor, then becomes entitled to the 100 per cent allowance and any regional development grants. If the finance house is in a position to take advantage of these allowances then some of the benefit could be passed on to the user by way of a more competitive leasing charge.

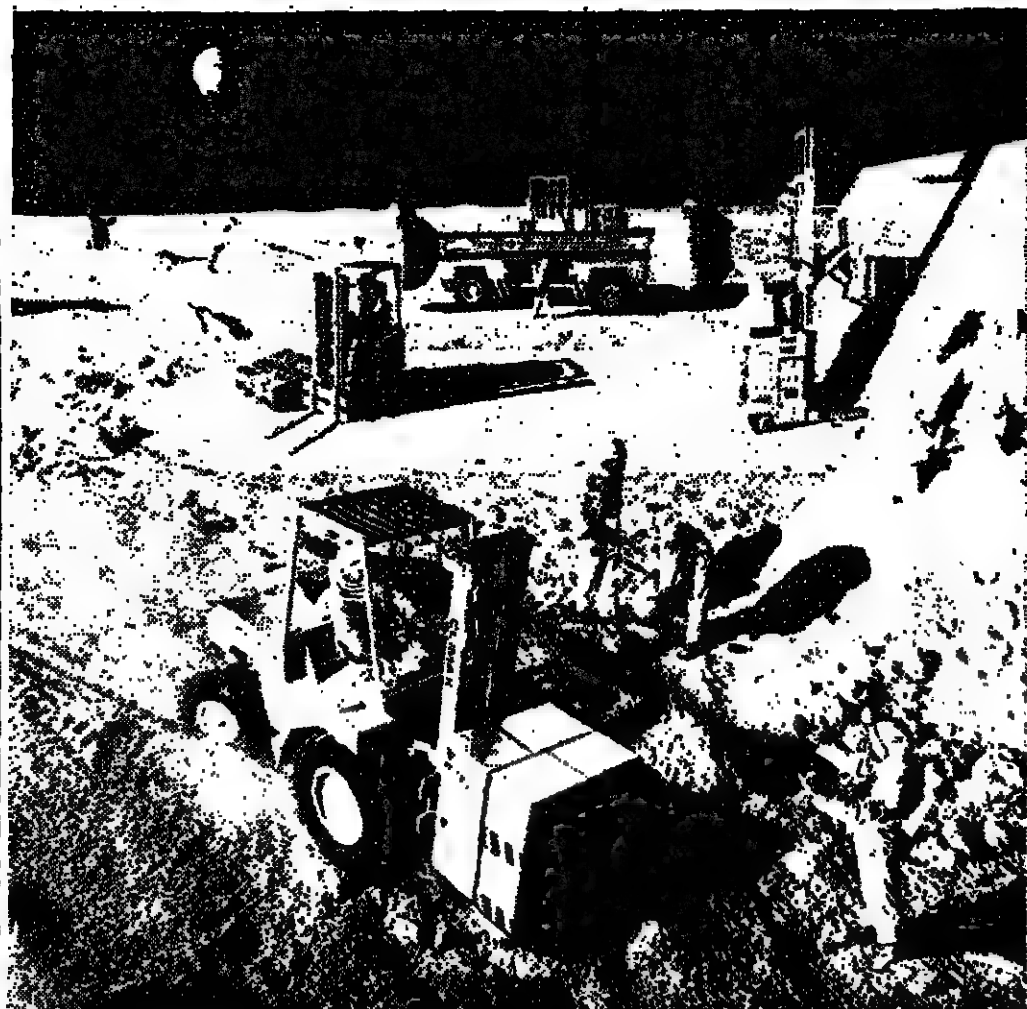
Contract hire is a form of leasing but it also contains servicing agreements and is mainly used when vehicles are involved. Fork lift trucks are one of the most common forms of materials handling equipment and here rental or some other form of leasing arrangement

is extremely popular. It is estimated that about 20 per cent of the 125,000 fork lift trucks in the U.K. are operated on a rental basis and perhaps as many as a further 20 per cent obtained through hire purchase and leasing agreements. Lanning Bagnall, the largest fork lift company in the U.K., has both a rental and leasing subsidiary and the number of new truck acquisitions that are made by means other than direct purchase is rising.

Rates are increasingly tied to inflation. Since the new replacement cost of a fork lift truck has risen about two and a half times over the past five years, this has become a major problem for hirers. Fixed price contracts are giving way to agreements which take rising prices into account. Different hirers apply different formulas.

The Fork Truck Hire Association, which represents 50 of the 70 or so companies operating in the field, has a standard contract which allows for increases in rates at regular six-monthly or yearly intervals according to movements in the retail price index. Variants of this contract use the index of materials and fuels purchased by the mechanical engineering industries or the industry wages index. The increase in rate may be applied to parts of the contract, such as maintenance or other service costs, or to the whole.

David Freud



All within our range.

There are now over 120 different fork trucks in the Climax range.

At one end, we can offer you our pedestrian electric trucks. While, at the other, we will happily supply you with a 56,000lb sideloader.

In between, you'll find there are all sorts of other interesting possibilities.

Such as rough terrain and reach trucks and a full range of electrical or mechanical counterbalanced models.

You name it. The chances are we can supply it virtually anywhere you want. Well, almost.

Coventry Climax

Climax, Climax Conveyor, Climax Shovel, Climax Stevedore, Climax Ltd., Widdington Road, Coventry CV1 4DX. Telephone: (0203) 27771. Telex: 311192. A subsidiary of S.P. Industries Limited.



This Sorex Marshall belt conveyor is part of a £1m. expansion programme by the Worcester Royal Porcelain Company and is used to carry lithographed porcelain pieces to an inspection area.

Conveyors

panies have at present only a small share of the business. More than a dozen manufacturers are involved and the idea is to establish a kind of "shop window," staffed by an engineer and a small team, which will also serve as a listening post and a point of contact with clients and contractors. If this pilot operation is successful, it may be extended to other countries.

The other side of the conveyor business, unit handling, is also dependent on the level of capital spending, but the size of individual projects is smaller than in bulk handling and this is one reason why the industry is more fragmented. It is relatively easy for small companies to establish themselves in the unit handling business, buying in most or all of the components and needed for the installation and then assembling them on site.

Whether this is a source of strength or weakness is a matter of some debate. Certainly the availability of an efficient component supplying industry is an important asset, but it may be that the structure of the contracting industry is not ideally suited for enlarging the U.K.'s share of export business.

In certain sectors there are big companies in the field. For example, GEC Mechanical Handling is one of the major

contenders in baggage handling for airports and in postal mechanisation, especially parcels, where it has won a number of overseas contracts. Jenkins of Retford, a Babcock and Wilcox subsidiary, is active in automated warehouse systems (a market which has been slow to develop in the U.K.) and in unit handling; it is a major supplier of overhead monorail conveyors for the motor industry.

Active

Another big company in the unit handling field is J. H. Fenner, whose Fenamex subsidiary is active in a wide range of industrial and warehousing applications. It is a competitor to GEC in airport baggage handling and recently installed a large system at Gatwick. In postal mechanisation Fenamex is a member of a consortium which also comprises Midland Dynamo, George Robson (Conveyors) and Davies Pritchard and Richmond. This consortium recently won a contract from the Hong Kong Post Office and is competing for a larger order in Kowloon, in association with Jardine Engineering.

It is possible that the formation of special-purpose consortia of this kind can be extended to other fields, thus enabling smaller companies to partici-

pate more directly in overseas business. But the materials handling contractor will often wish to retain the freedom to choose the sub-contractors he considers suitable for a particular installation. Equally the suppliers of standard equipment will not wish to compete directly against the contractors who are their most important customers. It would make no sense, for example, for Dunlop, an important supplier of conveyor belting for bulk handling systems, to set up as a contractor in the same field; where Dunlop does act as a contractor, it is on special applications, such as the supply of its own design of moving walkways in airports, where it is not competing against its own customers.

"Thus it is not certain that a restructuring" of the conveyor business, creating larger manufacturing groups or larger consortia, will benefit the industry. There is a complex pattern in materials handling which does not lend itself to simple rationalisation. It is clear that the role of the systems designer and contractor will become even more important in coming years; but the backing of an efficient and flexible network of sub-contractors and component suppliers is no less vital.

G.O.

Keep it clean, fellas



"Yeah! You up in the corridors of power ready to sign that order for a new fork lift truck. Battery electrics rule - OK?"

"Alright, we know they cost more to buy. But who wants to drive a noisy engine-truck all day - exhaust fumes and all? Would you have one in your office?"

"It's the truck that needs to be tough, not the driver - and battery electrics are tougher than you think, especially with Chloride batteries fitted - OK?"

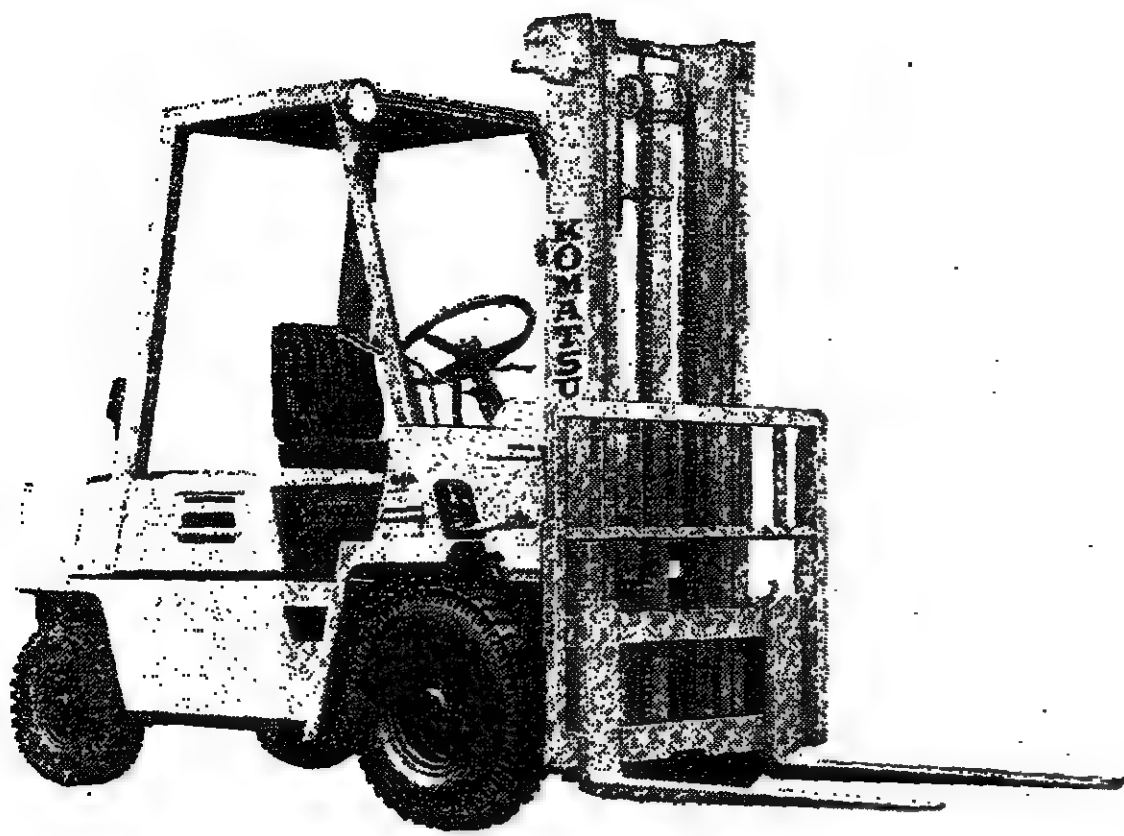
"So keep it clean, fellas."

Chloride Industrial Batteries Limited,
P.O. Box 5, Clifton Junction, Salford, Manchester M27 2LR.
Telephone: 061-794 4611. Telex: 669087.

CHLORIDE
PURE POWER

MECHANICAL HANDLING VI

KOMATSU'S NEW GENERATION



There is a new generation of forklift trucks from Komatsu. Over sixty models with lift capacities from 400 to 40,000 kg and a power unit for every operating requirement - petrol, L.P.G., diesel or battery. They are designed for safe, easy use with safety features like low centre of gravity and high stability; sturdy overhead guards in compliance with international standards for safety and wide-spread lift-masts for maximum driver's vision. Komatsu lift trucks are built to give maximum operating efficiency with minimum maintenance.

Komatsu, one of the largest manufacturers of forklifts, has its own sales and service company here in Europe to back up the expertise and service of its distributors. Komatsu Europe operate a massive parts warehouse, with same-day dispatch of urgent parts, to reinforce the distributors' own parts stocks.

A NEW NETWORK FOR THE NEW GENERATION

Handling Analysis, of Northampton, are now the sole concessionaires for Komatsu forklifts in England and Wales. In addition to their Northampton sales, service and parts facilities, Handling Analysis have branches in Bilton (West Midlands) and Ipswich (Suffolk) to give country-wide service to Komatsu users. Handling Analysis, who are experts in all forms of forklift truck operation and service, are now backed by the facilities of Komatsu Europe S.A. Based in Brussels, Komatsu Europe provides in-depth training, parts and service support for the full range of Komatsu products. Handling Analysis and the new Komatsu generation - it's a tough combination to beat!



Sole Concessionaires for England & Wales
HANDLING ANALYSIS LTD.
Home Farm Works - Little Billing
NORTHAMPTON
Tel. Northampton 890609
Telex: 33174 - Branches in Bilton
(Tel. 43913) and Ipswich (Tel. 49523).



Sole Concessionaires for Northern Ireland
CHARLES HURST COMMERCIALS LTD.
16-18 Ravenhill Road -
BELFAST BT6 6EH - Tel. 54141 - Telex: 74393

KOMATSU
FORKLIFT TRUCKS

Efficiency in the factory

THE FACTORY floor is the heart of production and within the overall manufacturing process, handling of materials represents a potential, and often overlooked, source of cost reduction. In the Department of Industry report called "Materials-Handling Costs—a new look at manufacture" published 18 months ago the main reason for wasted resources being spent on materials handling was isolated as poor layout planning, itself usually a result of ad hoc expansion in the absence of a strategic development plan. Since materials handling is essential to the central productive process, but not itself productive, the ideal factory layout keeps materials handling costs to a minimum while ensuring efficient flow to, through and from the shopfloor.

To achieve the often substantial cost benefits available from efficient materials handling the logical approach is to eliminate all unnecessary handling and reduce to a minimum all remaining elements of movement and storage. Other basic guidelines are to keep materials moving—often to the extent, wherever possible, of processing while in motion and to avoid letting materials touch the floor.

The simple rule of thumb is to minimise the distance over which materials have to be handled. Poor planning leads to long and complicated movements and poor space utilisation particularly in static and work-in-process storage.

The goal for the materials handling systems planner is, after analysing the product or commodity mix and the priorities for the relationship between the various activities of the manufacturing cycle, to obtain the greatest volume, frequency and earning capacity, using the most efficient handling over the shortest distance.

For the company which has detected inefficiency and possible savings in materials handling the ideal approach may well be to call in the experts. These could be companies producing a range of mechanical handling equipment, institutions like the National Materials Handling Centre or specialist management companies like the Modern Materials Management Group of companies.

For 15 years Modern Materials Management has been providing a complete consultancy service to companies seeking to improve existing operations and plan expansion. In line with the DOI report MMM does not believe more efficient cost-saving materials handling systems must always involve large capital expenditure.

The company says: "For many manufacturing plants in this country much can be achieved by maximising existing shop floor the most frequently found units are probably fork lift trucks, manual or electric hoists, simple store and in-process storage and sometimes a conveyor, often of the belt



W. Germany's DEMAG group has developed this Manulift gear, with a wide range of quick-release attachments, for single-handed operation with light loads.

It is still true that few companies are aware of the costs involved in storage within their factories.

Although piece-meal remedies for materials handling problems are almost universally condemned, a systematic analysis of the production process may highlight areas in which improvements can be made.

There is also an increasing awareness that the benefits of efficient materials handling are not limited to those of direct cost saving. Efficient handling provides better control, safety and reliability within the productive process and this may mean investment in more mechanical handling.

Choice

The basic units of mechanical handling are industrial trucks, conveyors and lifting machines. On and around the small factory shop floor the most frequently found units are probably fork lift trucks, manual or electric hoists, simple store and in-process storage and sometimes a conveyor, often of the belt

type. There is, however, a wide and still increasing choice of materials handling equipment.

Where flexibility of operation is required over a wide area industrial trucks are often the first choice because of their ability to move products horizontally and vertically, travel between production activities and move outdoors between buildings where necessary.

Where space utilisation is at a premium narrow aisle and side-stacking trucks are often employed. Where weight or lifting heights are too great, "walkies," powered pedestrian trucks, are a popular alternative to the conventional fork lift.

Crown Lift Trucks, which claims to be the world's largest manufacturer of pedestrian stackers, says there is a substantial market for "walkies" lifting up to one ton to a height of about 11 feet. The growth areas in the industry are probably in narrow aisle equipment capable of operating in less than 5 feet, raw material, work-in-progress and prior to distribution. Efficient storage avoids "piles on floors," delays in material supplies, and can provide bulk purchase cost benefits.

Where access to separate loads is not important and the unit load is rigid and strong, free stacking or block stacking is normally used. Shelving and bins are used for small items issued in quantity while pallet racking provides good access to individual loads. With "drive in" racking a truck selects the required unit.

Increased storage density can be obtained by using live or mobile racking like Bar Productions' Mini Storax system where racks are individually powered by electric motor and pedestrian aisles are opened up at the touch of a button.

Whatever the size and product of a factory the ultimate aim of the materials handling systems designer is to produce a movement and storage plan covering the whole manufacturing cycle. This plan must embody the most efficient and suitable mechanical handling to fit the customer's purse and allow for future production expansion.

There is hope among the worst in construction since the last war, has at least encouraged contractors to tighten up their operations and, in doing so, to consider improvements to their handling systems. Cost savings have become all-important against a background of slim or even non-existent margins and site efficiency has therefore come in for some close scrutiny.

Not that actual overall sales of construction site handling equipment have performed significantly better than in any other sector of the engineering industry, although they are now substantially up on the very poor levels achieved two years ago. There is hope among the

specialist trucks, says the swing is towards bigger trucks with a comprehensive range of lift heights allowing the maximum use of space via dense and high stacking with attachments to bring speed to special tasks. Naturally the type of storage and choice of pallet height, weight and peculiar operating conditions affect truck choice.

For companies simply wishing to improve the efficiency of existing trucks with the least possible capital expenditure the growing renovation and rebuilding industry may prove first choice. The MEL group of companies operating from Bicester claims rebuilding can cut maintenance costs and save up to 60 per cent. on corresponding new equipment.

In some circumstances hoists and cranes may provide an alternative to lift trucks for heavy loads. Where heavy units have to be moved within a prescribed area, electric overhead travelling cranes running on rails near the roof have the advantage of occupying no floor space, and the ability to lift over obstacles. While fork lift trucks can operate to racking heights of 33 feet, most cranes can reach 100 feet.

Where the problem is providing a fast controlled fixed path movement for large capacities with little floor space usage, conveyors provide a possible solution. The field of conveyors is very wide corresponding to the extensive range of materials a conveyor can carry and the conditions in which it must function.

Sovex Marshall, one of the leading British conveyor manufacturers, produces a whole range of conveyors from the common belt conveyor, gravity and powered roller conveyors through to overhead chain conveyors and complex sorting systems. Overhead conveyors have the added advantage of requiring no floor space and, if need be, providing "live storage" where, for example, a painted product can be left to dry.

Potential

The company stresses the labour-saving potential of mechanical handling. This enables the productive workforce to be expanded by transferring materials handling staff to production. Sovex Marshall also argues strongly against impulse buying. It suggests that managements should consult companies offering a range of mechanical handling and then ask for a selection of quotations. It is interesting to note the DOI suggests that flow-line factory layouts tend to be more efficient than job or batch systems and points out that standardised containers, pallets and handling equipment all bring cost savings.

Storage may be required for raw material, work-in-progress and prior to distribution. Efficient storage avoids "piles on floors," delays in material supplies, and can provide bulk purchase cost benefits.

Where access to separate loads is not important and the unit load is rigid and strong, free stacking or block stacking is normally used. Shelving and bins are used for small items issued in quantity while pallet racking provides good access to individual loads. With "drive in" racking a truck selects the required unit.

Increased storage density can be obtained by using live or mobile racking like Bar Productions' Mini Storax system where racks are individually powered by electric motor and pedestrian aisles are opened up at the touch of a button.

Whatever the size and product of a factory the ultimate aim of the materials handling systems designer is to produce a movement and storage plan covering the whole manufacturing cycle. This plan must embody the most efficient and suitable mechanical handling to fit the customer's purse and allow for future production expansion.

Paul Taylor.

The needs of the builder

THE CONSTRUCTION site can be the most demanding workshop of all, for operatives and machines.

As a recent and somewhat controversial report from the Health and Safety Executive pointed out, the construction site is a high-risk area for accidents because of its ever-changing and challenging nature.

The Executive's description of the conditions under which contractors have to work was a forceful one and also demonstrated clearly the demands which are likely to be made on any machinery involved in the building process.

"The construction site is very different to the factory. In a few months it can be a hole in the ground, a concrete slab, a steel frame. In a short time, the labour force may change completely and certain jobs are at the mercy of the weather. Darkness and week-end working make supervision difficult."

Quite apart from any qualities demanded of the men who work under such conditions, their machines must display the same flexibility and ruggedness and yet they must also be as reliable and as unsophisticated as possible.

All the factors which make the construction industry so inherently difficult and potentially dangerous have to be borne in mind continually by the manufacturers of site handling equipment, whose success depends on meeting the

needs of their building and civil engineering customers.

It is fair to suggest that, for many contractors, the question of correct materials handling procedures—leading to more efficient use of labour and less materials waste—is one which has too often been ignored. Countless reports have highlighted the room left for improvement in this area and have demonstrated the potential savings available to the contractor who spends a little time and money organising the movement of his materials on site.

There is evidence that the present recession, possibly the

worst in construction since the last war, has at least encouraged contractors to tighten up their operations and, in doing so, to consider improvements to their handling systems. Cost savings have become all-important against a background of slim or even non-existent margins and site efficiency has therefore come in for some close scrutiny.

Not that actual overall sales of construction site handling equipment have performed significantly better than in any other sector of the engineering industry, although they are now substantially up on the very poor levels achieved two years ago. There is hope among the

present recession, possibly the



Throughout the Year-Throughout the World
MANITOU OUTSELLS ALL OTHER SITE LIFTS

Manitou (Site Lift) Limited • Chandlers Ford Industrial Estate • Eastleigh • Hants

MANITOU

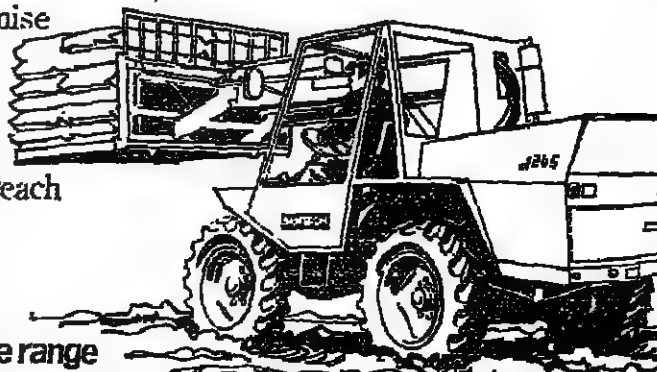
The new Sambron J24S

A brilliant, no compromise solution to handling problems—combining hydraulic pick up and lock-in of attachments from the cab, forward reach and freelif.

SAMBRON

No other range has the range

Sambron Limited, Hillbottom Road, High Wycombe, Bucks. Tel: High Wycombe (0494) 33477. Telex: 62508.



MECHANICAL HANDLING VII

New warehouse techniques fight for acceptance

THE EFFICIENT storage of goods in warehouses was greatly stimulated by the war, when it was forcibly brought home to those in charge of moving stores that an efficient system of storage and access was indispensable to efficient movement. Warehousing as an "art," however, has been of more recent origin, and it is only in the last two decades that work has been done on the theory and advanced practice of warehousing, and information disseminated to—and more important used by—industry.

A number of key institutions emerged. First were the Institute of Materials Handling and the National Joint Council of Materials Handling. In 1970 came the creation of the National Materials Handling Centre at the Cranfield Institute of Technology, which quickly established itself as one of the world's leaders in assisting industry to make better use of the systems approach in the field of materials handling and storage distribution.

However, as Mr. Peter Parker, now chairman of British Rail, but then vice-chairman of the British Institute of Management, said in a speech to the Royal Institution two years ago, British industry has been slow to respond to these advanced technologies. Mr. Parker thought part of the answer to why they have been so slow lay in the words used to describe the operation: "One of the constraints to the acceptance of the full value and vitality of the new thinking lies in the words 'materials handling.' If ever a word made a dull sound like plunk as it hits the Board table, this must be it. 'Handling' carries with it precisely contrary implications to what we are mostly trying to do anyway."

"The German word *Materialfluss*, or materials flow, illuminates more effectively the area of technology for the design and operation of material movement and storage systems. My own hest bet, and I have shown my hand in what I have said earlier, is a synthetic new piece of jargon: *matflow*."

Awareness

Matflow, it seems, has not caught on yet, as Mr. Parker hoped it would, while he himself has gone to an industry where problems of "matflow" are even more acute. Yet it seems that there has been a growing awareness of the gains in efficiency which can be made by adopting the "systems" approach, and that the U.K.'s warehouses, even the more antiquated ones, are gradually being adapted and changed to cope with modern pressures in storage.

The need to think of systems increases continually as space becomes more expensive. A less well-advertised constraint, but no less real, is the cost of labour and the attraction labour-saving equipment has for those who can afford the capital cost of installing it. The growth of labour in warehousing in the past 20 years has been remarkable. For that very reason, the major companies are looking

more and more closely at machinery.

The warehouse is merely a shell, a covered area in which goods are stored. The art of efficient storage is to have that space used as efficiently as possible for the materials stored there. That means both the best use of space and the most convenient access possible to the materials themselves, coupled with a readily understandable stock control system.

Each of these desiderata interact upon each other to modify each other; ease of access almost inevitably decreases the maximum amount of space available for shelving or racking, for example. Forklift trucks need reasonable room to manoeuvre, much more than a man with a ladder and block and tackle. The gains in efficiency, speed and economy must be traded off until a working optimum is found.

Crucial

The matter of economy is a crucial one. Surveys conducted in the U.S. show that distribution amounts to around 15 per cent. (on average) of the Gross National Product, and that that proportion is a rising one. That means that there is increasing emphasis on purpose-built units to ensure an efficient flow of goods rather than relying on ageing and often ill-suited ones. This is exacerbated by the way material handling and storage costs are generally allocated. It has been the custom to say that material handling adds nothing to the value, only to the cost. Thus they are fragmented by cost accounting in the production department, and no overall grasp of the problem as a whole

Builder

CONTINUED FROM PREVIOUS PAGE

manufacturers, however, that when the revival in the economy does get under way, the benefits of proper materials handling techniques learned during the recession will be translated into higher equipment sales.

The specialist requirements of the contracting industry have led to the development among some equipment suppliers of whole new breeds of machinery designed to cope with tough operating conditions. Nowhere has the "rough terrain" concept been more diligently pursued than in the development of fork lift trucks which—despite the growing range of handling equipment available to builders and civil engineers—remain the principal item of handling machinery on most sites.

Despite the recession, sales of rough terrain trucks in the U.K. have risen rapidly in the last five years or so, with foreign manufacturers doing particularly well. Some of their success has been due to the appeal of their machines to the plant hire operators, who see them as a relatively inexpensive investment, simple to maintain and adaptable to meet the requirements of a wide range of customers. In addition, specialist operators are not required and the plant

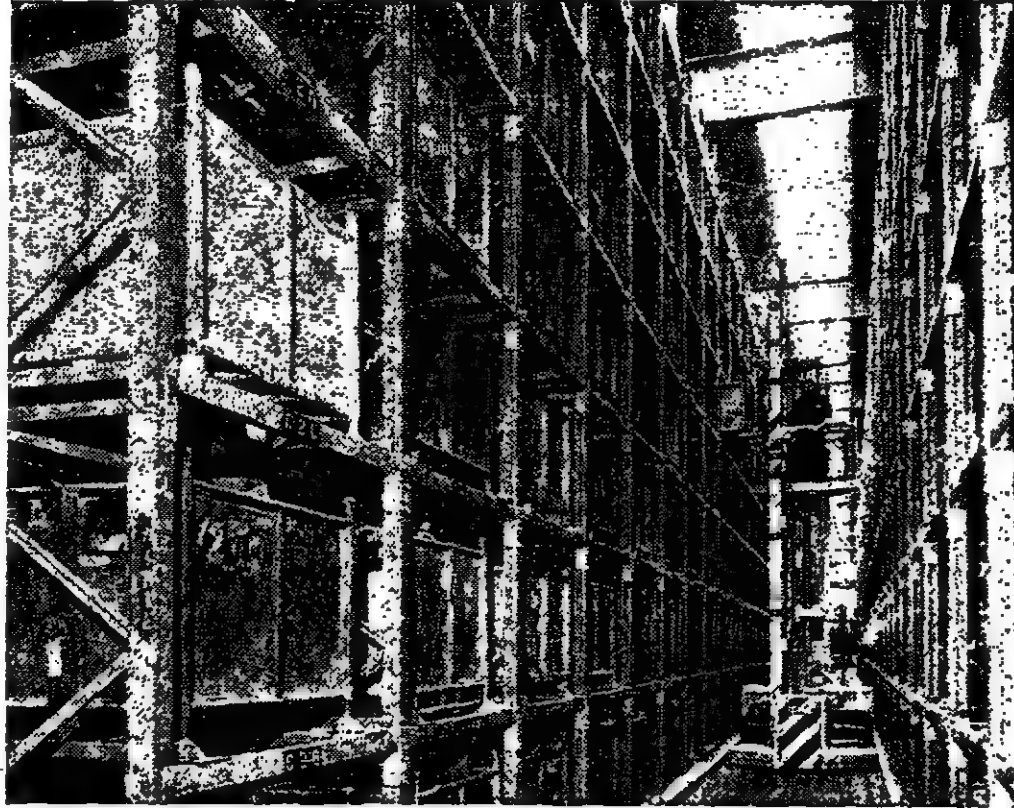
can be gained by the company. The need for material flow—handling and storage—to be regarded as part of an integrated system is a pressing one if efficiency is to be improved. This would mean that the warehouse would cease to be regarded as a costly (if necessary) shell and rather more as an early part of the production process.

Given that there is a perceived need to be efficient, what can the modern manager do within his warehouse? First, he must identify the type of racking or shelving best suited to his materials; racking, say, for a steel stockholder, shelving for a toy manufacturer. After that comparatively simple division, he has several choices.

He can, for instance, choose pallet racking, where he has fork lifts or elevator loaders; shelving, where his goods are more suited to shelves than to pallets. He can choose from different types of these, depending again on the materials and the necessity for speed of access.

Raised structural platforms are being used increasingly to complement the various types of racking and shelving. Essentially this is an additional floor, or mezzanine, useful in older factories where the total floor area may already be efficiently used, but where the height is not.

Originally, these platforms were either incorporated into the buildings from new, or structural steel engineers fabricated a suitable frame subsequent to building. But now they are fragmented by cost developments in the industry are increasing the flexibility of these platforms, and making it easier for them to be installed to support. Steel plate may be



Dezion Speedlock installation at Henry Wiggins' Hereford plant, the largest in W. Europe for the production of nickel-based alloys.

The flexibility is important in those buildings where the shape is unpredictable or where needs may change from time to time.

The mezzanine floors are most suitable where products are difficult to place on pallets, or where there has been a change in the use to which the building is put. The idea is inherently flexible, because of the choice of materials with which it can be constructed, depending upon the loads it will be called upon to support. Steel plate may be

John Lloyd

Forklift trucks

FIAT



For the widest range of frontloading sideloading and reach trucks.

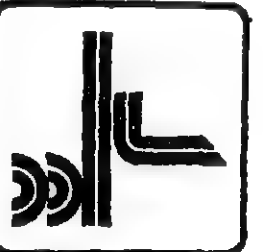
Capacity ranging from 600 kg. (1320 LBS) to 50,000 kg. (110,000 LBS). In diesel, petrol, LP Gas, electric and electronic speed control for precise selection in every industrial and handling need.

- Highest Fiat quality
- Major components manufactured by Fiat
- Rigid Fiat testing regulations
- Durability and reliability
- Smooth operation and driver comfort
- Economy and minimum maintenance cost
- World wide after sales-service
- Free advice for all handling problems
- Three factories - 1200 employees - 25 years special experience in the mechanical handling field

With years of advanced technology and widespread research we are now committed to maintain our reputation throughout the world.

Forklift trucks

FIAT



For further information:
FIAT FORKLIFT TRUCKS
LONDON OFFICE
35 BERKELEY SQ.
LONDON W1 X6EE
tel. 01-4935033
telex 21898 FIALO



GANTRAIL

Britain's
Crane Rail Mounting
Specialists

supply a comprehensive range of fastenings and Polyurethane Pads which resolve the majority of track problems encountered.

Their experienced teams of Erectors install all types of Ground and Overhead Gantry Tracks, and their qualified Welders are available to site weld rails into continuous lengths, using only the recognised approved processes.

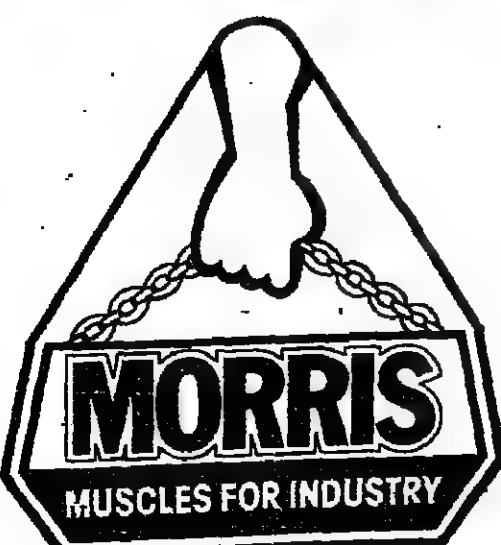
All GANTRAIL Mounting Systems whether Soft, Semi-Soft or Hard carry a GUARANTEE when installed by their experienced personnel.

Write, telephone or telex for fully illustrated literature of all GANTRAIL products.

Gantry Railing Limited
Vulcan Works, Vulcan Way
Sandhurst, Camberley
Surrey, GU17 8DB
Telephone:
Yateley (0252) 873227
Telex: 858760

GANTRAIL

There's more to Morris than muscle.



We've been shouldering industry's weightier problems for 96 years. With the help of our heavy duty cranes, our Centrelift and Universal factory cranes, goliath cranes, hand cranes, jib cranes, hoists, conveyor systems and lifts.

You'd have thought that, having achieved a reputation for reliability, value and safety, we'd have been content to leave it at that. Not a bit of it.

We like to have all the answers to all the questions and the other Morris companies, have those answers at their fingertips.



Lloyds British Testing and Crane Aid Services, for instance, make it their business to keep all your lifting and handling equipment up to scratch. They're also on hand for emergency repairs. (With 30 depots and 300 mobile service engineers, no one can respond as quickly to a call for help.) They'll also alter or expand handling systems and keep all your equipment safe. An unusually thorough service? Let's call it unique and have done with it.



Linear Motors Limited pioneered the technology of linear motors for handling and conveyor systems. Seven thousand existing installations indicate the enormous potential of linear motors—the simplicity, reliability and economy of a motor with no moving parts has to make sense. The fact that we're leaders in this important field shows that we take innovative engineering and technological progress very seriously indeed.



British Monorail specialise, as you would expect, in monorail and conveyor systems. They're also the people to talk to about automatic handling systems, stacker cranes and automated warehouse equipment.



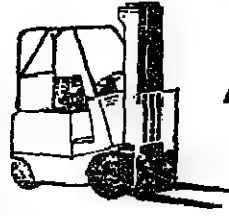
The Complete Morris Package is another idea whose time has definitely come. It's a total mechanical handling package. Which means that it includes the supply and installation of all the necessary equipment as well as planning, site preparation, factory construction and training too. Everything's taken care of—right down to finance. So if your company is about to invest in a warehouse or a shipyard there's only one place to go—Herbert Morris.



All Davy International companies.

Herbert Morris Limited, PO Box 7, North Road, Loughborough, Leicestershire, England. Tel: (0509) 63123 Telex: 34408

DON'T SCRAP YOUR ASSETS!



Let the **REBUILDERS**
to **INDUSTRY**
survey your fleet

You **SAVE** up to 60% of new, and get a six months guarantee when we rebuild your trucks. JOIN the many companies who use us.

ALL HANDLING LTD
Murdoch Road
Bicester, Oxon
(086-92) 42012/3
Telex 837607

OF
BICESTER

ALL HANDLING LTD
The Old Mill
Old Malden Lane
Worcester Park
01-330-3360
Telex 8814598

IS HANGING GARMENT HANDLING YOUR PROBLEM?

THEN CONSULT

F.T. ENGINEERING LTD.

55, HIGH STREET, FRIMLEY,
SURREY.

TELEPHONE 0276 62044 TELEX 858702

O&K lift trucks: It's not just engineering that makes them ideal.

O&K lift trucks are reliable and driver-oriented, featuring advanced engineering and operating convenience. They are amazingly stable, with very low center of gravity, and have one of the best hydraulic systems available. On the fully automatic V16, V20 and V25 models, a control system automatically distributes power to the wheels. With an O&K lift truck, container handling is easy.

With rugged diesel, gas or electric motor drive, O&K lift trucks feature fast acceleration, quick turning and great cargo-handling ability. With track power for 1.6 to 8 tons.

You have to drive an O&K to believe: Nonfatiguing operation, hydraulically cushioned seat, hydrostatic steering, excellent visibility, sure-handed driving and ease of maintenance.

And O&K service is as good as the lift trucks themselves—from presale problem analysis to computer-controlled parts service, backed up by a network of after-sale service locations.

Thus, you're assured of optimum reliability in every respect, backed up by a name that is synonymous with top quality in large-scale production vehicles: O&K... they really stack up!

O&K Orenstein & Koppel
Aktiengesellschaft
Postfach 17 0167
D-4600 Dortmund 1
FRG Germany

In UK apply to
O&K Orenstein & Koppel Ltd.
Watford, Northampton
NN6 7XN
Phone (3272) 5621



Now
that's
what I call
a lift truck.

Please send me complete literature on your lift trucks. I am interested in: Diesel, Gas, Electric. Have an O&K representative call on me.

MECHANICAL HANDLING VIII

Weighing the consequences of automation

REMEMBERING positions, quantities, "trigger" low levels at which re-order action has to be taken, and extracting from order sheets the references for each one of thousands of positions in a big warehouse complex is a relatively simple job for an up-to-date computer.

But between it and the pallets there are many intermediaries and the problems of getting the computer-generated instructions to the men operating the big stacker cranes, or the pickers feeding conveyor systems, have been tackled in a number of ingenious ways—not all of them necessarily economic.

Warehouse and depot control by computer or some other form of electronic "intelligence" has not expanded to the same degree as, say, business computing, which is not to say that programs aimed at warehousing in general—that is, stock control—have been neglected. On the contrary, practically every small system now offered as a package deal will provide stock control as a matter of course.

It is the step beyond the manipulation of the relevant data in the brain of the computer that is not being taken as often as it could—the step in which the slow and cumbersome routine of noting a stock change on a document as a pallet is

extracted and returned and then submitting the document to some form of data capture terminal is replaced by sensors which themselves determine what change there has been and report it instantly. Whether complex mechanical units could become fully automatic is a question for conjecture. Whether they should is another matter. It would not demand a great deal of ingenuity on the face of it to provide a controller to do the same work but artificial intelligence which would allow the controller to take emergency action if something unprogrammed and dangerous happened costs a great deal of money to develop.

Nevertheless, designers of equipment and systems based on the rapidly proliferating microcomputer are very confident that they may well make a great impression on many contrary, practically every small system now offered as a package deal will provide stock control as a matter of course.

It is the step beyond the manipulation of the relevant data in the brain of the computer that is not being taken as often as it could—the step in which the slow and cumbersome routine of noting a stock change on a document as a pallet is

creasingly appreciating the fact that a micro with some memory and a simple optical sensor can be a valuable unit in a complex handling problem. It could take part of the load off any central computer. And if, instead of referring all signals to this central unit, all local events were processed on the spot and only those relevant to a total operation, or those for which the local unit could not account, went to the centre, the whole array could be made much cheaper.

Not all systems designers see this area as one where networks of low-cost micros will take over from much larger machines. However, it would seem that one is arguing about how long rather than whether. Designers closely linked with the micro warn that the task of restating data processing problems in terms of micro solutions can take a long time.

Meanwhile there are many instances, especially in large and complex installations, where the presence of a computer is contributing significantly to the economics of the whole operation. One of the most recent is on a new 65 feet glass-cutting machine able to handle 10 x 20 feet and plate glass. Made by Paakoke of West Germany and installed by Multi-glass, the machine allows more economic usage of raw materials by planned cutting.

To put the sheets into position for cutting an automated pneumatic table swings them from the vertical stillage on to the bench where correct positioning is interlocked with a roller transporter. On the cutting table is a rail-mounted cutting bridge with four heads for longitudinal and one for transverse scoring. Selection of the appropriate heads is by press button with computer feed-out of the instructions to be given to the machine to meet the day's orders.

Hand-cutting of glass on a batch basis is extremely wasteful. Matching of two dimensional shapes on a flat material so as to achieve the best possible job with minimum waste is an interesting mathematical problem and one computers can now solve in a short time.

In the installation, all orders and dates are fed to the computer which schedules cutting sequences so as to produce the minimum of off-cuts.

Award

Several of the big computer manufacturers have involved themselves in warehouse and production line control but the glass-cutting machine able to handle 10 x 20 feet and plate glass. Made by Paakoke of West Germany and installed by Multi-glass, the machine allows more economic usage of raw materials by planned cutting.

To put the sheets into position for cutting an automated pneumatic table swings them from the vertical stillage on to the bench where correct positioning is interlocked with a roller transporter. On the cutting table is a rail-mounted cutting bridge with four heads for longitudinal and one for transverse scoring. Selection of the appropriate heads is by press button with computer feed-out of the instructions to be given to the machine to meet the day's orders.

National Centre's role in information

"DYFOL DONC a dyr y was also concerned about whether the first flush of enthusiasm which had led to the establishment of the Centre would be sustained. Now, eight years later, few if any of the original doubts remain. "We are boringly successful," says Mr. Williams to-day when he tries to think of a journalistic "angle" to a story about the Centre.

The Centre, where Mr. Williams is the director, is a remarkable institution. It was born in 1970, the child of the old Ministry of Technology, the Institute of Materials Handling, the Federation of Associations of Materials Handling Manufacturers and the Cranfield Institute itself. Behind its creation was the growing general recognition among the experts that materials handling was a crucial side of industry's operations not receiving anything like the attention it deserved.

Intention

Handling accounts for a large part of general industrial costs—an average of 35 per cent. of factory costs in a survey of 40 engineering companies by the Centre. But it was all too seldom seen as a specialist activity of its own. The intention was to provide a focal point for information, advice and research covering all aspects of materials handling.

Yet the birth was accompanied by a great deal of doubt. The Centre was intended to be a self-financing, though not profit-making, ideal which has sometimes proved elusive in industry-based research and advice establishments. So there were worries about money in particular.

There were worries too about just how useful a role the Centre would find for itself and, more important, how useful that role would appear to industrialists—149 half-day survey visits were mounted as knowing all they needed to in 1976-77—to look at specific handling problems and to recommend solutions. Areas covered

include layout and methods, warehouse management and methods, materials management, activity calling for specialist distribution strategy, and equipment design and performance.

Very much related to this advisory service is the Centre's work on equipment design and performance, which has been made special use of by companies whose products are difficult to handle and which are therefore concerned to design their distribution delivery techniques at the production stage. Parallel to this is a market research service used by equipment suppliers and currently being expanded.

Education is another area of the Centre's operations being expanded. Its educational activity is largely based on a series of one-day seminars up and down the country organised in conjunction with the Department of Industry and based on the Centre's research into the increasing awareness of materials handling costs. Two-manufacturing industry that day and one-week courses are

CONTINUED ON NEXT PAGE

Hytrac versatile overhead systems for every industry

If you have an overhead handling problem, we can solve it. Send for details of our comprehensive range.

HYTRAC CONVEYORS LTD

Thurleston Boulevard Barkby Road Leicester LE4 7LE England
Telephone 0533-785221 Telex 341489

NUMBER ONE...

THE WORLD'S LARGEST
MANUFACTURER OF HYDRAULIC
TRUCK MOUNTED, ROUGH TERRAIN
AND INDUSTRIAL CRANES.

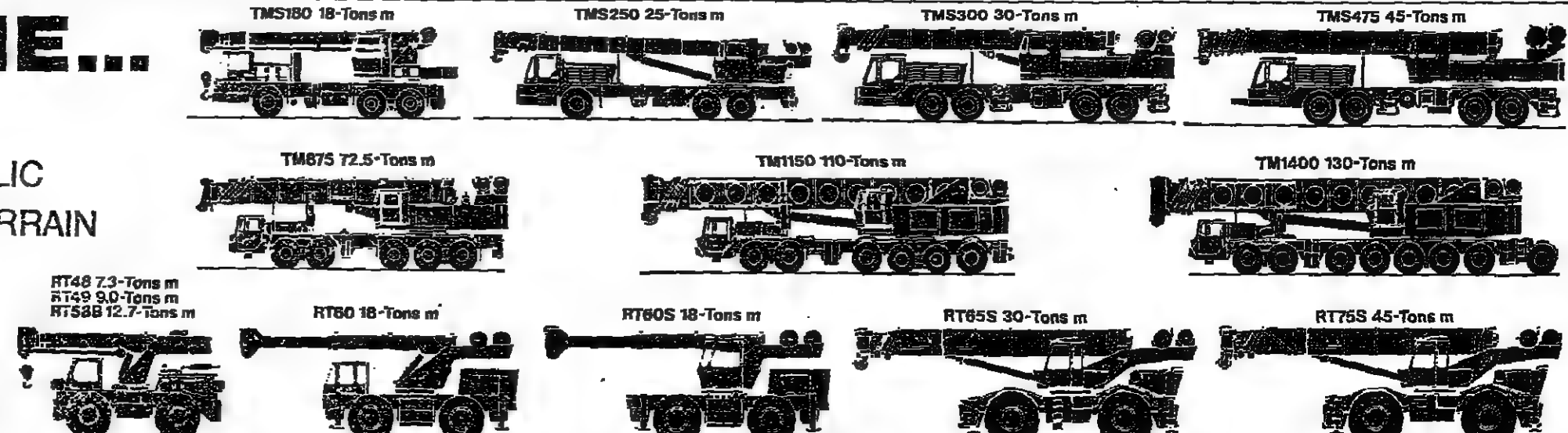


GROVE CRANES LTD

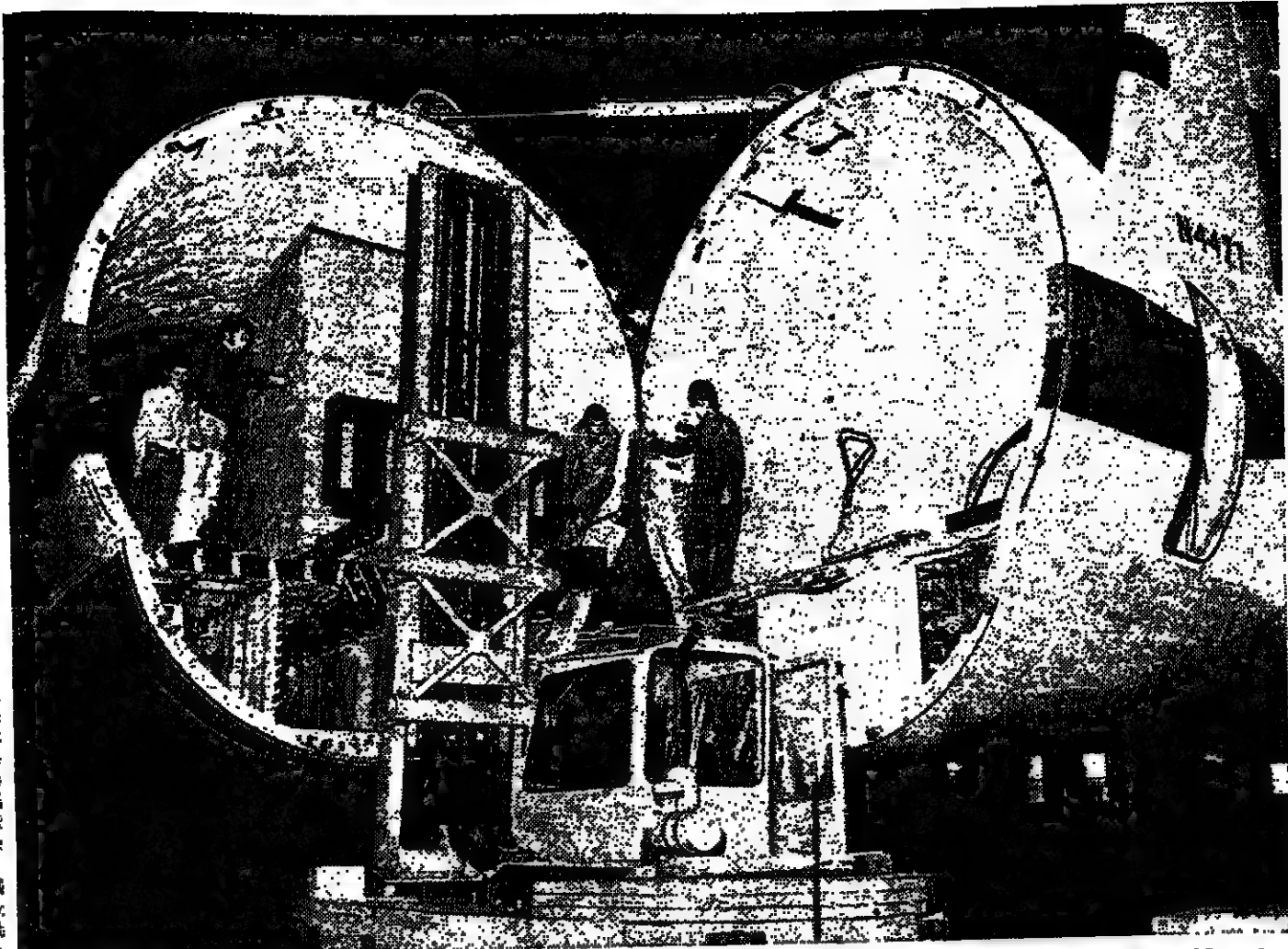
KIDDE

OWLEY, OXFORD OX4 3LP

Telephone: 0865 776271 Telex: 83172



MECHANICAL HANDLING IX



Part of a £1.5m. order by the Nigerian Broadcasting Corporation from Marconi ready to be flown to Nigeria by IML Airchartering.

Growth likely in air freight

WITH WORLD air freight now expanding at an average annual rate of about 12 per cent—rather higher than the 8 per cent a year growth being experienced on the passenger side of the air transport industry—it is clear that there is a substantial volume of business waiting to be won by the manufacturers of all kinds of equipment for handling this increasing tonnage of goods moving through the world's airports.

The air transport industry in the past has frequently been a catalyst for new technological developments in a wide variety of engineering and scientific disciplines. Hitherto most of these have been on the side of the design, development and manufacture of aircraft, and their handling at airports, and on the processing of many millions of passengers swiftly and smoothly. But with air cargo development now moving out of the comparative backwoods of aviation into the forefront of airline management thinking, a new era is unfolding. The reason why cargo handling—with the exception of a few major airlines—has in the past had to take a lower priority than passenger handling is that passengers have been the major revenue-producing traffic, with cargo being more or less a "fill-up." The fact that the volume of cargo was relatively low compared with passenger traffic did not provide any great incentive for a concentration of effort towards improving handling methods.

This is now changing, and the rate of change is likely to accelerate. There was a time when the commonly used method of handling cargo was to haul it from the terminal in trucks and load it into aircraft manually, piece by piece, or by the aid of fork-lift trucks.

Now, with the advent of the bigger "wide-bodied" types of aircraft equipped with large cargo holds in addition to their passenger cabins, there has been a substantial increase in the use of containers. Shippers can now load their own containers in their factories or have "freight forwarders" under-take the task for them if their loads are not large enough to fill containers in their own right. This is particularly true of the demand for an immense variety

Widespread

There are still many airports round the world into which such complex and expensive systems have not yet percolated, and show no signs of doing so. At those airports—and there are many more of them than most people imagine, for there are about 28,000 civil airfields throughout the world of various kinds, from rough grass strips to giants like Heathrow—the old methods of manual labour, supported by the ubiquitous fork-lift truck, still remain the staple systems of cargo handling, and it is these which are likely to continue to provide the biggest market for equipment for years to come.

This is not to suggest that there is unlikely to be a major market for the much more elaborate systems as well. As cargo growth continues, and more airports find their existing antiquated systems falling increasingly into disrepair with airlines and shippers, the pressures for introduction of modern electronically-controlled handling systems will grow. It is likely that more and more integrated cargo handling systems will be installed, where the goods are virtually untouched by human hands from the moment they leave the shippers' plants until they arrive at their destinations. This will give rise to a demand for an immense variety

of items of equipment, ranging from the well-understood fork-lift truck through to air-cushion pallet transporters, roller-conveyors, electronic sorting devices and computer systems for the overall control not only of the physical side of the handling business but also of the documentation, which appears to increase in complexity and quantity as air freight itself grows.

One example of the way in which the handling of cargo has progressed in recent years is afforded by London's Heathrow Cargo Centre, where the unique computerised Customs clearance system known as LACES (London Airport Cargo Electronic Data Processing Scheme) has been functioning for some time. This is a system whereby the airlines, agents and customs inspectors are linked together by computer for the purpose of speeding up the clearance of cargo through Customs.

The parties, through Visual Display Units, are linked to a central computer, which governs the whole system and takes the major decisions on how a particular piece of cargo is to be cleared. Information about a consignment is filed with the computer through a VDU, and the computer advises which procedure should be adopted to clear the cargo most expeditiously, along with a calculation of duties, taxes or other charges payable.

The real advantage of LACES is that it replaces sluggish paperwork with computer electronics, and is helping to make the speed of cargo on the ground more commensurate with the speed of jets in the air.

Michael Donne

Information

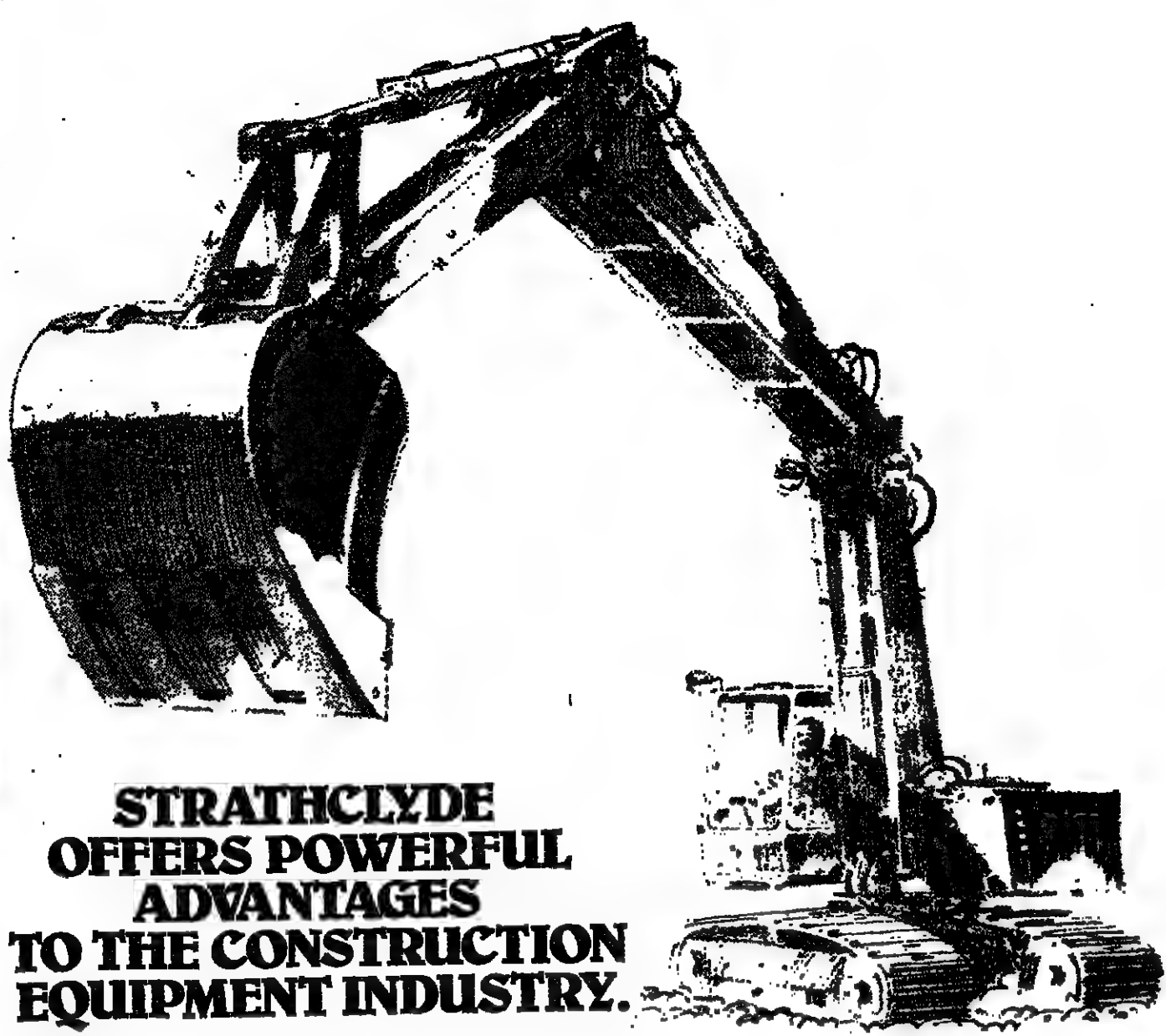
CONTINUED FROM PREVIOUS PAGE

also run. In addition there are educational activities accounted for over 2,000 student days, more than double the total for the previous 12 months, in which four or five speakers actually achieved a surplus for the second year running. With an income of just short of £220,000, £141,795 of it from research and industrial activities, the profit was a very healthy £47,709.

This is being spent on expanding educational activities, especially on the educational side, and on recruiting additional staff to make this possible. There is, too, a drive on membership (which is based on companies, not individuals) and in particular on developing a programme based on involvement in research programmes, working parties, and conferences.

What the second year of surplus has made possible is far greater confidence in the Centre's future. "Now that the problem of survival is behind us," says Mr. Williams, "we have greater freedom of choice in the way we can develop in the future. We see our principal role as being that of acquiring the knowledge of techniques used in materials handling and of disseminating them to the advantage of U.K. industry. This is why we are concentrating on the development of our educational role and on the expansion of our information programme to our member companies by problem clinics and seminars."

David Walker



STRATHCLYDE OFFERS POWERFUL ADVANTAGES TO THE CONSTRUCTION EQUIPMENT INDUSTRY.

Strathclyde has one of the greatest concentrations in the U.K. of companies involved in the manufacture of specialised construction equipment ranging from excavation and earthmoving machinery to quarry crushing and screening plant.

Traditional engineering skills together with extensive Research and Development facilities are major factors in encouraging the development of construction equipment companies. Local manufacture of special steel is another advantage.

Financial incentives are good too. Strathclyde's special Development Area Status entitles incoming industry to maximum U.K. government assistance. There is an ample supply of factories and sites and Strathclyde offers superb communications not only with the rest of the U.K. but also with North America and Europe. If you'd like to know more about the advantages Strathclyde can offer, fill in the coupon below. We've prepared a special report on the Construction Industry called "The Specialised Mechanical Equipment Market" that will give you all the facts.

Name

Position

Company

Address

Strathclyde Industrial Development
21 Bothwell Street, Glasgow G2 6NJ
Telephone: 041-221 4296



Things need never be handled the same old way again.

Amidst the current zeal surrounding "increased investment" and "the regeneration of British Industry" you might expect materials handling systems to be of less than overwhelming interest. And, unfortunately, you'd be right. Unfortunately, because materials handling is one of the most overlooked methods of increasing efficiency in Britain today.

Take mini BULK. A system for handling any dry, free-flowing material, from foodstuffs to plastics, from chemicals to cement, mini BULK can hold up to one tonne of material and can be fitted whilst suspended from the arms of a fork-lift truck, moved and stacked by the same method, and emptied in less than 30 seconds. Compared to the traditional system which uses between 20 and 40 bags, the savings in time and money are obvious. In fact, mini BULK will revolutionise your materials handling system without a significant outlay and the resultant savings make it an investment which will quickly recoup the initial cost. Not only that, it can increase sales and customer satisfaction.

If you'd like to handle things more efficiently, contact Bill Griffiths, mini BULK Advisory Service. Telephone Colchester (0206) 77991. Telex: 96121 or post the coupon below.

mini BULK If you're in materials handling let mini BULK handle it for you.

I'm interested in mini BULK please send me more information.

Name

Position

Company

Address

Telephone Post today to:
FT25 Pertwee Industrial Limited,
Harbour House,
Pertwee Group Colchester, Essex CO2 8EF.

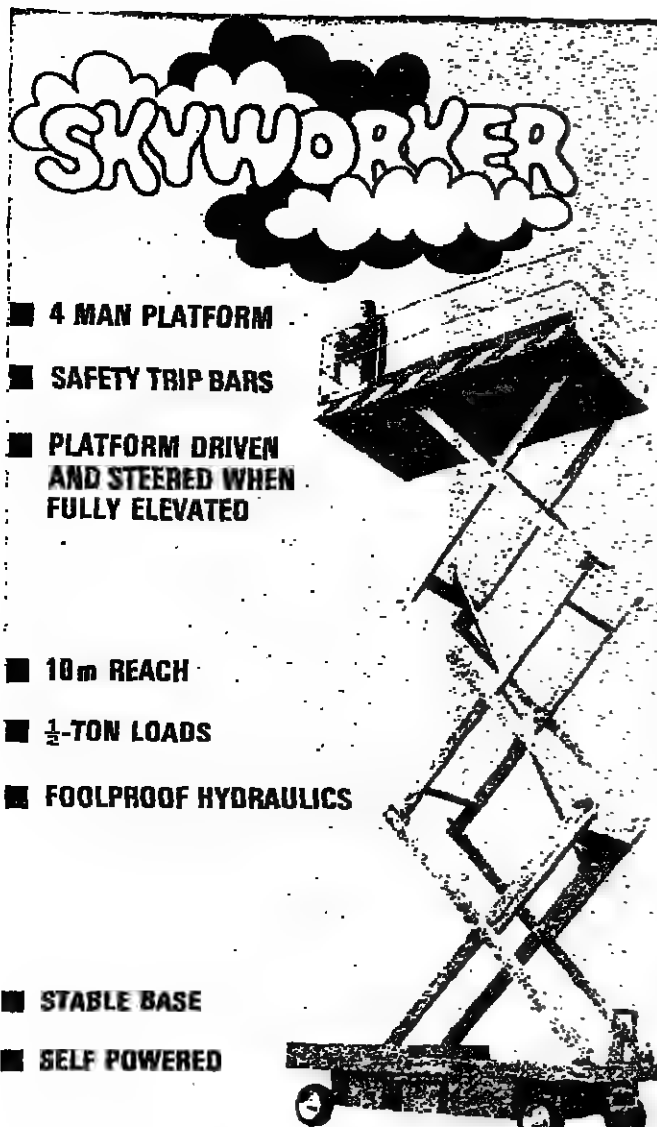
Do you build or adapt Cranes? Then consider.... CRANEPAC

Cranepac contains all the components required plus instructions for building a reliable crane at minimum cost.

You provide the workshop and fabrication Doity provide specialist components developed by years of experience in crane manufacture.

Single or double girder? Span? Capacity? Given your requirement, Doity will be pleased to advise.

DOITY CRANES LTD
Crane Makers Production Engineers
P.O. Box 25, Rochdale, Lancs. Telephone: Rochdale 48971 Cable: Doity, Rochdale.



- 4 MAN PLATFORM
- SAFETY TRIP BARS
- PLATFORM DRIVEN AND STEERED WHEN FULLY ELEVATED

■ 10m REACH

■ 1/2-TON LOADS

■ FOOLPROOF HYDRAULICS

■ STABLE BASE

■ SELF POWERED

THE VERSATILE GIANT FOR INDUSTRIAL ACCESS

Big, strong and smooth to lift men and equipment to 30ft. heights, SKYWORKER will travel forward, backwards and steer left and right. Will work a full 8-hour shift on one charge. Write for details today



POWER LIFTS LTD
Hodley Works, Caxton Way,
Hodley Industrial Estate, Westford, Herts.
WD1 8TJ England.
Telephone: Westford 27724 Telex: 923328

300 Kg—SALTER—100 Tonnes

CRANEWEIGHERS

WEIGH AS YOU LIFT

ENSURE SAFETY DIAL OR DIGITAL INDICATION

SALTER INDUSTRIAL MEASUREMENT LIMITED,
George Street, West Bromwich, West Midlands B70 6AD.
Tel: 021-563 1855, Telex: 537314.

MECHANICAL HANDLING X

Pool system points the way for pallets

THE PROBLEMS of the U.K. pallet user are well illustrated in the recent Department of Industry report on the subject which suggests on the one hand that more direct exchange or rental systems are needed, but points out on the other that half the pallets now in use are of unusual type or size.

This state of affairs is one which cannot be resolved in the short term without great efforts to standardise, but the recommendation on exchange or rental systems is now being proved correct by the continuing success of the GKN Chep pallet-pool system.

The report, published last year, says that the benefits of the scheme should be examined closely by companies using standard size pallets (1000 by 1200mm) after they have carried out a thorough assessment of their direct and indirect pallet costs.

"Users now operating on the retained ownership principle should also explore the feasibility of collaborating in a direct exchange scheme, in conjunction with a centralised control system designed to minimise unnecessary haulage or empty pallets," it says.

This central recommendation is made against other findings which make alarming reading in some respects. The number of timber pallets in use in 1975 was estimated to have been 25m, to 30m, and an estimated 11.6m, manufactured in that year, but about 3m were lost or unaccounted for.

Because the rate of input by manufacturers to users could have been low enough to account for some of these "losses," it was not possible to estimate the exact loss, but at the lower estimate of 1m, a year at £2.50 each, the cost is very considerable.

At the same time the report concludes that there is as yet no comparable alternative to the timber pallet for the majority of duties, although it is admitted that some alternative materials are attractive for light duty system, or the existing rental expendable pallets and others scheme developed to give wider

are suitable for specialised duties where special hygiene or sterilisation requirements apply.

It also warns that the use of low-specification pallets in an effort to offset the high rate of wastage is a shortsighted policy, and recommends that in these circumstances users should upgrade their pallet specifications where necessary to reduce the average cost per use.

One area of considerable wastage is identified as the period during which pallets are outside a company's immediate control, where they are sent out loaded for return empty after goods are delivered.

In the case of unusual type or size of pallets, retained ownership is seen as the only practicable system, with more than half the pallets currently in use falling into this category. Rental schemes now available are limited to standard size pallets and their potential is therefore restricted to about half of all pallet usage in the U.K.

However, it is considered that if other problems were eliminated, rationalisation of the types and sizes of pallets currently in use could be reduced to a range which would lend itself to direct exchange or rental systems. Ideally, both systems should be operated in conjunction with a centralised recovery service.

Body

A rental system would, the report says, require an administrative body capable of sorting out minor problems before they become big enough to threaten the system. A direct-exchange system would need a similar body, which would also have the advantage of affording some control to the companies.

"It is not possible at this stage to say which of the two—direct exchange or the existing rental expendable pallets and others scheme developed to give wider

coverage, would best minimise the total cost of pallet usage. Both need effective competition for maximum efficiency," the report concludes.

Although not referred to specifically, the GKN Chep rental scheme has clearly had considerable influence on the report, which admits that this system largely avoids all the sources of wastage associated with other systems, such as the failure to repair pallets, use of poor quality pallets and complete loss of use through casual destruction.

This does raise the question of concern among customers of rising long-term rental costs and the danger of a monopoly arising out of the operation of a large-scale operation needed for rental in the report is that some additional costs do arise due to the need for participating companies to retrieve empty pallets from their customers, either to haul them back to their own factories or to the nearest rental depot to de-hire them.

The activities of GKN Chep have in the meantime continued to expand and with 14 depots it regards its cover as fully national, although more will be added to bring this number up to 22 eventually. More than 1.25m pallets are now in the rental system and this figure is growing at the rate of around 10,000 a week.

From its fairly narrow base of food and related industries, GKN Chep is now moving into other areas and recently introduced a pallet cage system which it hopes will prove attractive to manufacturing industry. Another encouraging sign for

below that of a rental service, the company is more rapid in the report is that system.

It is now thought to be the largest single purchaser of companies to retrieve empty pallets in the U.K. and is co-pallets from their customers, its buying among suppliers. It has also conducted studies on the introduction of half-pallets, designed to appeal to customers who need to supply straight on to the floor of retail shops.

The company's main problem so far has been managing its rapid rate of growth, which was reflected by the claim that it went into profit for the first time last year following its initial investment of around £6m.

The success of this venture so far has gone a long way to prove the point about the advantage of a centrally administered system and at its present rate of growth it appears to be leaving little doubt that rental is here to stay.

Lorne Barling



Each pallet in this double load is held with Lowce polyester strapping, and on a lift truck will absorb any shock as one unit.



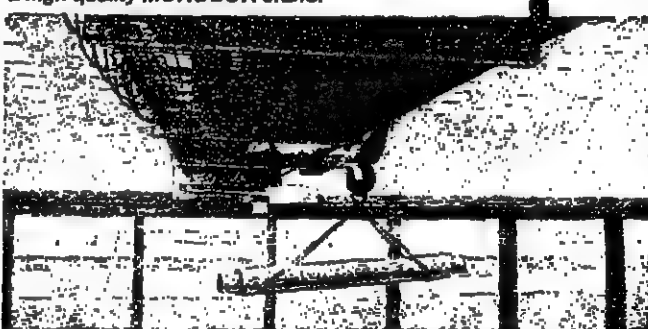
We'll take the high load

A Scottish firm with an impressive international reputation, Carruthers has been supplying MONOBX cranes to industries throughout the world. Wherever there is overhead lifting to be done, a MONOBX crane can take the load.

Built to an award-winning design, a MONOBX crane can be quickly and easily assembled from stock parts to any specification. And all types of lifting tackle supplied - to handle anything from cable to concrete, sheet glass to scrap metal.

The single box girder structure, with its high strength to weight ratio, is economic, versatile, reliable. Maintenance is trouble-free, breakdowns rarely occur.

Next time you think about high loads, think about a high quality MONOBX crane.



Carruthers
MOVE UP WITH MONOBX

Britain's leading crane manufacturers.

J. H. Carruthers & Company Ltd.
Peel Park Place, College Milton,
EAST KILBRIDE, Glasgow G75 5LR

50 years mechanical handling experience behind every

BEV
Battery Electric Truck

Fume free and silent in operation, these free-roving fixed or elevating platform trucks will integrate with your existing handling systems. Manufactured in working capacities up to 10 tons they are low on maintenance costs and will last a lifetime.

Write for details to
Winigrove and Rogers Limited,
Dornville Road, Liverpool, L13 4AT, England.
Tel: 051-220 4641
Telex Chacom Liverpool 627110 for Winigrove.

Tecreel
EXTENDS
the range of your mechanical handling plant.
Tecreel THE self-retracting HYDRAULIC hose reel
Plymouth Devon PL6 8LA
Telephone: 0752 62844 Telex: 45-561

First names in industry need careful handling

Alcan Aluminium - Bass Charrington
Beecham Group - Bowater Corporation
Bridon - British Airways - British Railways
Board - British Steel Corporation
Calor Gas - Ciba-Geigy - Dexion
Dunlop - Firestone - Ford - GEC - GKN
Green Shield Trading Stamps
Hawker Siddeley - H.J. Heinz - IBM - ICI
ITT - Kellogg Company - Kodak
Lloyds Bank - Mersey Docks
Montague Meyer - Perkins Engines
Port of Bristol - Port of London - Reckitt
& Colman - Redland - Reed International
Rolls Royce (1971) - Scottish &
Newcastle Breweries - Smiths Food Group
Texaco - Tube Investments - Unigate
Watney Mann - Whitbread - Wiggins Teape

BARLOW
handling

The first name in materials handling.

Barlow Handling Limited,

Head Office: Airfield Estate, Maidenhead.

Tel: Littlewick Green (062882) 2151.

Hyster lift trucks, Sany reach trucks,
Hi-Racker high bay warehousing trucks,
Barnec Ranger rough terrain trucks.

Some of the greatest names in British Industry depend on Hyster, Sany, Hi-Racker and Barnec Ranger trucks. Because not only are they the very best trucks around, but they come with all the back-up that's second to none. Barlow Handling have the resources, the nationwide service centres. We've got the experience. A wealth of it. The best names in Britain depend upon the Barlow service, so can you.

Training for safety

DESPITE ITS undoubted value as a mechanical handling technique, the fork-lift truck has a bad safety record in factories and warehouses. A special study carried out in 1974 revealed that up to 70 per cent of accidents involving vehicles in factories had fork-lift trucks as the cause. In addition, some 9 per cent of deaths in factories in that year were due to fork-lift trucks.

A substantial number of these accidents could be attributed to driver error. Operator's ignorance of the regulations and principles of lifting resulted in accidents during the lifting, stacking, and lowering processes.

In 1976, the last full year for which figures are available, fork-lift trucks were directly responsible for some 30 deaths in factories and over 5,100 accidents. In warehouses and on the docks a further five people were killed in almost 400 accidents.

The safety of employees in areas where fork-lift trucks operate depends upon such factors as safe systems of work, adequately trained operators, well-maintained trucks of safe design and manufacture, a suitable environment, such as smooth and level floors, and segregation of pedestrians and trucks as far as possible.

But it is the lack of training of operators that continues to be the most dominant factor in fork-lift trucks' safety. Virtually anyone of any age or temperament can be put in charge of a potentially lethal vehicle weighing from 63 tons and costing up to £20,000.

In a recent report the Health and Safety Executive points out that some operators used fork-lift trucks to lift a man to a working position for a short period. In each case the executive studied, the man either straddled the forks or stood on a loose pallet. In none of the cases scrutinised had the trucks been adapted for use as a working platform.

The Executive comments that accidents caused by this wrong use of fork-lift trucks are unlikely to be reduced unless drivers are properly instructed, trained and licensed, before being put in charge and their performance subsequently monitored.

It also points out the effect that an improvement notice can achieve. In one medium-sized factory, for example, there were some 50 drivers, none of whom had received any formal training.

The consequences of accidents involving trucks overturning have always been severe. During the year studied by the

ing. Following an incident when one driver collided with a stationary object, an improvement notice was served requiring the firm to adequately train their drivers. Subsequently a senior engineer attended a course run by a firm of truck manufacturers and on his return instituted a formal training course for all drivers. All successful applicants were duly licensed for particular types of trucks.

Prompts

The investigation of a single accident or dangerous occurrence by the Factory Inspectorate often prompts wider investigations, either at national or local level. This is illustrated by the general inquiries which were instituted at a local authority wholesale market following the death of a 16-year-old fork lift truck driver. The truck overturned when he swung the steering wheel hard over at speed, contrary to the minimal training he had received during one month of employment.

It was found that although the local authority owned and operated the market the individual traders ran their own internal transport system and that more than 60 trucks, mainly of the fork-lift truck types, were in use on the site. Several of the companies, including the one for which the dead youth worked, did give instructions to their employees before they were officially allowed to drive vehicles. But the standard of this instruction varied considerably and only one company had sent any of its drivers away for external driving courses. Generally, however, there was no formal system for ensuring that only trained drivers used the trucks. Youngsters straight from school had been allowed to drive the vehicles within the market precincts without any training at all.

Following the Health and Safety Executive's investigation into this particular case, a meeting was arranged with the council and market traders. A plan was drawn up for the normal training of truck drivers and for a scheme of work where only such drivers were allowed on the vehicles within the market precincts.

The consequences of accidents involving trucks overturning have always been severe. During the year studied by the

CONTINUED ON NEXT PAGE

MECHANICAL HANDLING XI

Racking methods improve

THE RAPID developments in types and range of racking and shelving equipment has been stimulated by constant pressure on management to utilise space to best advantage. This pressure has generated a wide variety of types of shelving, which in turn means that the business has grown substantially over the past ten years.

There are now a number of standard racking and shelving systems on offer, from 20 major companies. The basic system is the simple frame; the difference between racking and shelving being that racking is a skeleton framework of fixed or adjustable design to support loads without the use of a steel or wooden base, whereas shelving is such a frame supporting a series of bases which in turn support loads.

There are several types of racking. One is mobile racking which is mounted on moveable base frames running on rails. The frames can be power-operated, manually operated or mechanically assisted, depending on the needs of the company. Then there is cantilever racking, with fixed or adjustable racks supported by cantilever arms to give extra strength where required.

Dynamic

Another system is dynamic storage racking, where a block of storage in depth is provided, with a rear or "loading" face and a front or "picking" face. Goods are conveyed from the loading to the picking face either by gravity, using an inclined surface or track, or by a horizontal powered conveyor. The advantage of such a system is that only two aisles are required to service a block of storage, thus saving aisle space and converting it into storage space. Lastly, in what is known as pallet racking, blocks of static storage are provided in which pallets are stored two or more deep. The racks are arranged in bays into which fork lift trucks can move to retrieve loads.

Shelving follows the simpler designs of racking systems, but is obviously less flexible, since the fixed bases act as a constraint on the mobility and arrangements of the loads they carry. Besides basic shelving, there are on offer cantilever shelving and mobile shelving, both on the same principle as their racking equivalents.

Racking can be and is further sub-divided by two main types, pallet and storage racking. The first takes the pallets, or portable platforms, which are usually handled by fork lift trucks. The pallets and their loads remain together on the racks throughout their storage life, to allow ease of handling by the fork lifts when they are to be moved again. The second type—storage racking—is adapted for more or less stan-



An example of the mobile racking and high density storage systems developed by Storax.

dard containers which have no pallet base. The three major companies in this field are Acrow (Australia), Dexon and Link Ltd. All three offer most of the standard varieties of pallet racks and storage racks. Also strong in the market are Bar Productions (Mechanical Handling), Finspa Engineering, Hi-Lo (Mechanical Handling), Steel Fabrications (Hullfax) and Welcon-struct.

The industry as a whole has developed from a large number of small companies producing a comparatively restricted range of simple equipment into one where there is a large capital investment and where the range of products is sophisticated and increasingly adaptable. Besides the pressure on space and the consequent market demand for better and better systems, there is the growing pressure of competition from an ever-more inventive industry, which has been successful both domestically and in export markets.

A third stimulant for companies in the U.K. has been the efficiency of the country's retailing chains, and the need of these chains for storage systems in warehouses which can respond to the stores' demand for rapid replenishment of their shelf stock. That in turn has led to examination of better ways both of storage and of access to the stores. Hence the development of drive-through and drive-in racking, and of the mobile and dynamic storage racking and shelving.

Racking can now be well over 100 feet high, and as deep as the nature of the materials stored, and the method of access to these materials, will allow. The racking can be clad, or strengthened, to form the main structure of the building. The

systems are increasingly being installed as integral parts of new warehouses, factories and offices, but they must also be flexible enough to be put into old buildings which were not designed for their use. Thus they often need to be installed to very fine tolerances, and equipped with guidance systems to suit the new generation of handling and access equipment.

How access is gained to the racking is thus almost as important as the type of goods stored on it. At the simplest level the racking is used to store light loads which are placed there, and taken off, by hand. More typically, however, shelving is used for the lighter loads (as office stationery, for example), and racking for heavier, industrial loads. For the latter access is typically gained by fork-lift truck, or by belt, conveyor or vertical conveyors.

Advanced

A good example of an advanced system of pallet racking, which is combined with computer control, is to be found at the main warehouse of Penguin Books near London's Heathrow Airport. The books are stored on pallets in high-racking reached by fork-lift trucks. Orders from the retail outlets are fed into the computer, and appear in the warehouse office on a punched card, indicating that the shop in question wants so many of this title, so many of that, so many of another. The fork lift trucks feed storage bays with titles; the storage bays are interconnected with a little railway, on which computer-controlled trucks, each one commanded to make up an order for a shop, shut to and

trucks are loaded by hand with the relevant number of books indicated on their card; they then shut to the next bay and so on until the order is completed, finally shutting to the distribution point where the books are packaged and despatched.

While the system depends in part on computer control and in part on the relative ease of storing books, it also depends on easily accessible racking systems which can be both replenished and emptied swiftly. The system itself thus contributes to the rapidity of turnover of the product, and to the speed with which stocks — especially of a popular title — can be replenished.

The future development of racking systems will almost certainly be towards increased automation. A research programme into these and other storage systems is presently being conducted by researchers in Strathclyde University on behalf of the Storage Equipment Manufacturers' Association of the U.K. and their European counterparts, grouped together in the Fédération Européenne de la Manutention (FEM). The research programme will take around three years, and it is hoped that it will contribute to some standardisation of equipment and styles on a European-wide basis.

However, one can anticipate the results of the research programme to some extent by noting that the three pressures which have contributed most to the development of racking systems — pressure of space, of competition and of increasingly efficient retailing — are likely to go on growing.

John Lloyd

Safety

CONTINUED FROM PREVIOUS PAGE

Executive, there were a number of fatalities where drivers were crushed between the framework of the cab or canopy and the ground. The obvious question, the Executive points out, is whether the traditional design of the cab could be modified to prevent this type of accident. The Executive also comments that some larger companies now use insurance companies to carry out scheduled periodic inspections of trucks. But accident investigations have shown that these are still in a minority. Frequently there has been no planned maintenance and what has developed is a breakdown repair system.

A useful booklet on the causes and prevention of factory accidents, published by the Royal Society for the Prevention of Accidents, points out that "safety depends on sound maintenance, which is why every crane or other lifting machine has, by law, to be thoroughly examined at regular

intervals." The booklet makes clear that this is a management responsibility but says that the actual examination is usually done by an insurance engineer. Every crane or lifting appliance has a maximum safe working load which should be clearly marked on it. It is dangerous as well as illegal to lift a load greater than this safe load, ROSPA points out.

Collapse

"A crane is designed to lift a freely hanging load, and the safe working load is calculated on this basis. If it is used to shift a load which is jammed or to lift at an angle from the vertical, it may be subjected to an unpredictable load. If the load catches on anything during lifting, the 'snatch load' may be many times the weight of the actual load. It is easy to overturn a crane in this way or to cause it to collapse."

The Health and Safety Execu-

tive gives an example of an accident involving a crane. The collapse of a rail mounted scotch derrick crane which had been examined within the previous 12 months drew attention to the need for regular and special examination of a bent piece of metal of rectangular section known as the "gland iron" which connects the back stay with the mast.

The accident occurred in a shipbreaking yard. The bottom of a trawler had been cut into a number of sections ready for removal. The maximum safe working load of the crane was five tons but the weight of each section of the trawler could only be estimated. The weight of one of the sections was being taken by the crane when there was a loud crack and the 120 foot long jib, mast and one of the back stays toppled over the sloping quayside into the water. The cab was pulled over with the mast and broke against the quay edge, trapping and seriously in-

juring the driver. Investigation of the incident pointed to the failure of the gland iron. It was found that about one quarter of the total area of the break on the gland iron had been cracked before the failure and that the rest had failed through fatigue cracking. It is doubtful if visual inspection of the gland iron would have revealed a crack.

Following the incident the company concerned arranged for all the gland irons on their derrick cranes in the U.K. to be non-destructively tested. Further defects were uncovered and urgent remedial action taken.

Pressure for more stringent checks in all areas of safety are likely to intensify later this year when the new statutory safety representatives and committees come into force under the Health and Safety at Work Act. This should encourage more employers to realise the potential killers in the factory.

David Churchill

ARE UNRELIABLE FORK LIFTS DRAINING YOUR COMPANY'S PROFITS?



Before you say "don't be absurd" take a good look.

Ask your production & warehouse managers how many hours your fork lifts spend waiting to be repaired. Costing you money. Doing nothing.

Find out how much production was lost through inefficient materials handling as a result.

See how many customers were kept waiting through delays in delivery. And were they twiddling their thumbs or phoning your rivals?

It's all these "little things" that drain

your profits with your hardly noticing. And Harvey's trying to stamp it out.

Already we've more sophisticated techniques for matching truck to task more effectively.

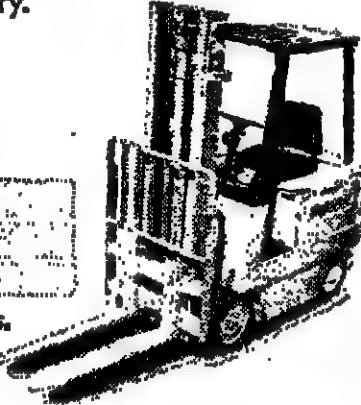
For training engineers to be more effective in avoidance of breakdown and rapid diagnosis and cure.

And predicting exactly when any part is likely to cause trouble. And replacing it before it does.

Unreliable fork lifts can be costing you more than you realise. It's completely unnecessary.

Harvey

Hire our trucks. To lift your profits.



Contact Mr Marilyn Brown, Marketing Manager, Harvey Plant Ltd., Lower Glary Hill, Woodburn Green, High Wycombe, Bucks HP12 0BB.



Consider...

Purchase price is important, but it's not the whole story. Consider all the costs over the life of a lift truck to determine your best value. Operating costs, including parts and repairs. The cost of downtime and the off-setting effect of resale value.

On Caterpillar lift trucks, maintenance is simple so it will be done. They're designed with a minimum of check points — grouped together where possible for quick access. Saves you money in the long term.

And you don't have to waste money waiting for parts, or carry costly parts stocks. The goal of Caterpillar dealers is to carry your parts requirements in stock. For you it means less money invested — less downtime.

Caterpillar dealers also offer programmes to

prevent downtime. To spot potential problems before they happen. It's all part of their CAT PLUS services — a total support system to help you get the best return from your lift truck investment.

Before you make your investment, consider the total picture — the right truck with low total cost.

There are 46 different models from 1000 to 27,300kg capacities. Electric, diesel, petrol, or LP gas power.

H. Leverton & Co. Ltd. Tel: Windsor 68121

Bowmaker (Plant) Ltd. Tel: Cannock 2551

Caledonian Lift Trucks. Tel: Airdrie 51111

McCormick Macnaughton (N.I.) Ltd. Tel: Belfast 59251

McCormick Macnaughton Ltd. Tel: Dublin 614222



Caterpillar, Cat and M are trademarks of Caterpillar Tractor Co.

turns your forklift into a complete mechanical handling system

IDEAL FOR

- WASTE • SCRAP
- SWarfs • POWDERS
- LIQUIDS • RUBBLE ETC.

This exciting NEW British invention allows cheap, second-hand 40/45 gallon oil drums to be used as containers throughout your works. Have as large or small a system as you want for virtually the same price!!!

Free colour leaflet MECHANICAL SERVICES Ltd. Belmont Road - Bolton - Lancs - Tel: 58434 (24hr.)

MECHANICAL HANDLING XII

The docks resist change

ACADEMIC INSTITUTES and the research and development departments of engineering companies continue their steady output of new products, from minor modifications to revolutionary concepts, but the world's port operators are not in a mood for dramatic change.

The pace of change has been rapid in ports in the last 15 years thanks to the containerisation of large sections of world seaborne trade a more than four-fold increase in the size of many ships and the more complex factors which have led to a steep decline in the port industry's workforce.

All these developments have contributed to the pressure on the design of mechanical handling systems at ports and the feeling is that operators and their customers require a period of stability and some time to make minor improvements on the changed fundamentals. Even if this requirement did not exist for operational reasons, the poor financial condition of the shipping industry would preclude large-scale investment in change.

Workhorse

It is interesting to note that even where finance has been less of a problem in the booming and fast-growing ports of the Middle East, and where the best in Western port consultancy skill has been available at the design stage, conventional solutions have been adopted for the most part.

A typical problem on which a great deal of energy has been expended is that of straddle carriers, the basic workhorse of the container berth, and used for moving containers to storage areas, where they can be fed by gantry cranes to the backs of lorries or railway wagons.

When the National Ports Council set out to analyse container berth systems about two years ago with the aid of consultants and a panel of experts from bodies such as the British Transport Docks Board, it concluded that the straddle carrier had had its day and should be designed out of future systems. The idea was that cleverly positioned rail-mounted cranes could do the same job, without the safety hazards of straddle carriers, which are exceedingly difficult to drive, the excessive quantity of down-time on the vehicles—

25 per cent. is normal—and without throwing greasy hydraulic fluid all over the berth surface, as was the case with the early and many current straddles.

The Ports Council report eventually decided that if straddle carriers had not existed then they would have had to invent them. No other vehicle offered the same speed of movement and relatively low maintenance requirement combined with the flexibility of the straddle. If only shipowners and freight forwarders could have every containerment for their ships planned at least a day in advance, perhaps a fixed rail or other type of crane system would have done, but the inevitable late arrivals of almost every ship make these alternatives less practical.

Not that this has ended criticism of the straddle carrier, but it has concentrated the minds of most critics more on improving design rather than questioning the concept. The main change has been a trend away from hydraulics in favour of diesel-electric or mechanical drive although a number of container ports in the U.S. have gone in for mobile, rubber-

wheeled gantry cranes and in Britain, Felixstowe has chosen a similar solution using Transainer cranes. It claims the Transainer system will give it 50 per cent. faster throughput. Netherlands has been one of the pioneers in the field of electric straddles. Indeed it only became involved in manufacture of straddle carriers in 1967 because it was called into deal with maintenance problems on a fleet of hydraulic straddles built by Clark. (The manufacture of Clark straddle carriers in the U.K. was taken over by the Ferranti group at the end of 1976.) The manufacturers of diesel-electric straddles claim the vehicles suffer only about 10 per cent. down time.

The main snag is that electric straddles are more expensive and for a port which has a substantial skilled back up of mechanics, the extra cost may well prove unjustifiable. The vehicles have naturally proved popular in areas like the Middle East where maintenance skills are at a premium and where high temperatures aggravate the problems of hydraulics.

One problem of an operational rather than technical nature facing container shipowners on the mechanical handling front is whether and to what extent to equip their vessels with self-unloading equipment. In general terms there is no doubt that the need for gantry cranes on ships is decreasing as ports in the developing world equip themselves to deal with the container revolution, but many owners still prefer the independence which self-unloading confers and which can be vital in the event of a disruption to normal port services by weather, strike or other disturbance.

When it comes to cranes for handling bulk goods, the main trend has been towards machines capable of heavier lifts at more rapid intervals. The basic concept of the transporter bridge, capable of handling a wide variety of cargoes, has not changed much in the last 20 years, but modern cranes are capable of discharging 3,000 tons an hour. Although there have been many predictions that this rate of operation and therefore, by implication, the transporter

bridge crane concept itself would be inadequate as bulk carrier sizes grew, the slump in world trade has in fact impeded this development. There are still very few bulk carriers in excess of 100,000 dwt.

The main improvements sought in bulk-handling cranes are in speed of operation and, a related question, better designs of mechanical grab.

The crane builder's contribution is to increase the actual speed of movement between cargo hold and discharge point by shortening the distance of grab travel and to design for higher grab payloads beyond the current maximum of 50 to 60 tonnes.

Damage

Among the problems created by heavier payloads are the risk of even greater damage to vessels' holds and hatch coamings. This is partly the reason why so much manufacturers' effort has gone into increasing the lifting capacity of the grab, while reducing the weight of the grab itself. Designs vary widely to deal with cargoes from lump limestone to sugar, but the versatility of the bulk crane ensures it a future against its more modern challengers.

These challengers mainly come under the heading of continuous unloading systems, by which can be meant a bucket-chain, slurry pipe, pneumatic pressure system, or conveyor belt.

None of these systems is in wide use, although most have been tried somewhere. Technically feasible, although capable of refinement, they are awaiting a new age of large ship loads, fewer discharge terminals and even lower manpower provisions. Continuous unloaders can also be fitted to the ships themselves, which is a very expensive form of cargo handling, but permits vessels to discharge into virtually unmanned storage parts at any number of locations within a small radius.

Similarly, it would be feasible to take the idea of slurry transportation for dry bulk goods a stage on from the

present position where dry substances are mixed with water at the ship's side and pumped to an inland terminal. It may in time become more economic to convert the cargo into slurry at the point of loading and transport it in large tankers, for pumping into holds rather like refinery towers.

Another advantage which will increasingly weigh in favour of continuous unloaders is the growing environmental pressure to avoid dust. Control of dust with a crane and grab system is difficult, although improvements have been made in recent years, but an enclosed continuous loading system, which avoids dropping powdery substances such as phosphate from a height, is of a different order in this respect.

It is the case too that because continuous unloaders operate at more or less constant speeds, they can require less energy than a conventional crane, although for the time being this too is not a factor to offset the high capital cost involved.

Ian Hargreaves

physical (the movement, handling and storage of materials); management (effective planning, control, review and improvement of the physical aspects); and technology (the techniques required to meet physical and management aspects).

It is the difficulty in getting across the importance of the whole subject which has prompted the long hard look at itself which the Institute has been undertaking for the past year or so. One aim is a big increase in membership—the 3,000 level was reached some five years ago and since then the numbers involved have remained more or less static—which will in turn add greatly to general awareness of the key role handling plays in all aspects of the world economy.

"We have not only got to double our membership very soon with men of the right calibre but, more important, we must retain it," Mr. Howard Hicks, the Institute's president, exhorted members recently.

Mr. Hicks, chairman and chief executive of the IDC Group, which he founded in 1957, is the Institute's first president, appointed just under a year ago in a move which marked the organisation's 25th anniversary. Much of the impetus behind the examination of the Institute's success in meeting its self-proclaimed role stems from him.

Changes that have followed include the appointment of a number of vice-presidents, all of them well-known figures within industry (in the very broadest sense: one, for example, is Major General Mike Callan, Director General of Ordnance Service in the Logistics Executive (Army)) whose connection with the organisation can only help to promote it.

On top of this, a committee has been set up to review services to members, which Mr. Hicks admits have been "inadequate." Considerable thought has been given as well to the possibility of a change of name, a point which might appear superficial but which, given again the difficulty of identifying everything that materials handling is about, is a matter of some importance.

The problem is that there are many areas between the management strategy related to handling and the engineering side of the operation—purchase and design, installation and maintenance of handling systems—where the role of the specialist body such as the Institute, and indeed the specialist individual, is blurred.

As a result, the bridge which should exist between the Institute as a generator of good industrial practice and industry as its beneficiary is broken. To quote the Institute itself: "Materials handling still does not impress senior management sufficiently as a subject which could help performance in any of the defined areas of industrial management... One major problem in industry is that the way in which materials handling responsibilities are shared between line and staff management depends on company strategy... All line management is responsible in some degree for handling materials in the manufacturing and distribution cycle. It is in fostering awareness of the degree of that responsibility and its impact on cost and profit that the IMH's role is seen to lie."

Agreed

It was over five years ago that the Institute started looking at its name; indeed that there should be a change was agreed then. But there was no agreement as to what. Only recently the Institute of Materials Handling Engineers was being put forward as the potential alternative, but that was ruled out in the end as focusing attention on just one aspect of a multi-sided subject—engineering, though highly important, is but one of the things the Institute is about.

One new factor making the question of name currently a subject of discussion is the forthcoming winding-up of the Department of Industry's Committee for Materials Handling. Set up in 1973, that is due to lose its Government sponsorship in November, but there is considerable interest in industry in ensuring that it continues to exist in some form or another. The Institute has been asked whether it would be interested in sponsoring it and has said yes, though whether the change-over, which would probably involve the committee's broadening out into a National Advisory Council, will actually take place is not yet known.

But if it does that will itself bring changes to the Institute. One of these could well be that it adopts that part of the Committee's title which is in parentheses—its full name is the Committee for Materials Handling (Management and Technology)—as part of its own nomenclature, stressing the two streams which between them go to make up the art-science of materials handling.

D.W.

The Institute's aims

MATERIALS HANDLING is probably one of the least appreciated aspects of industrial activity. Companies will spend large sums modernising their production processes and expend considerable efforts in trying to cut down overheads. But, the extent to which the handling of the raw materials involved in those production processes and the storage and final shipment of the end-result add to those overheads often goes unrecognised.

If the situation has been improving in recent years—and the signs are that it has, though nowhere near enough—a fair part of the credit must go to the Institute of Materials Handling. Based at Maidenhead, Berks., the Institute was formed just over 25 years ago with five principal objectives:

1. To promote the science of materials handling and to further the knowledge and appreciation of that science among the public generally;

2. To encourage and advance the study of techniques of materials handling in all its aspects;

3. To stimulate and promote research into the development and improvement of these techniques;

4. To increase the effectiveness of all manual workers by the study of methods of saving muscular effort and strain by scientific planning, and by the provision of the most effective mechanical aids;

5. To extend, increase and disseminate knowledge of, and facilitate the exchange of, information and ideas in regard to materials handling.

How far the Institute has succeeded in meeting those aims is difficult to assess. It has built up a large membership both in Britain and elsewhere—there are some 3,000 members in this country, while 40 per cent. of the total membership is from overseas—elected as individuals rather than company representatives. It was one of the driving forces behind the establishment of the National Materials Handling Centre at Cranfield near Bedford and has played an important role in the Department of Industry's Committee for Materials Handling, the source of, among other things, an invaluable series of pamphlets on various aspects of handling.

It is also actively involved in education, being behind the Materials Handling Certificate courses operated in various colleges of further education, and takes part in international conferences and exhibitions as well as those in the U.K. It publishes

its own regular newsletter and operates an advice service. Last, but by far not least, via its regional branches it brings together people actively involved in materials handling at regular intervals for functions which may be largely social or may have a serious topic in front of them but which, in either case, provide a forum in which people with a common interest in an important subject can exchange ideas and information.

Yet within the Institute itself there remains some doubt as to how effective it is. For materials handling is in some ways an unidentifiable activity. An aspect of so many things, touching on nearly every essential material aspect of life, in but a few cases does it provide a career, giving its practitioner a clear role such as other professional activity might.

Similarly, it embraces at least three distinct concepts: the

THE GREAT LIFT TRUCK DUEL. WE'VE CHOSEN OUR WEAPON

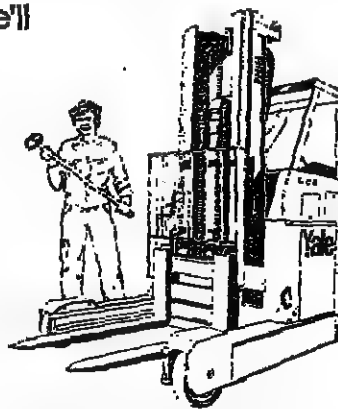


We challenge any other fork lift truck manufacturer to a duel. With 14-pound sledgehammers. Have a go at the thick steel plates on the side of our trucks. Then we'll have a go at yours.

Eaton makes Yale trucks stronger. Because when you buy a lift truck, it's got to pay its way. It's got to last a long time, and take hundreds of hard knocks during its working life. Eaton's Yale trucks go on working. Day after day. Shift after shift. Year after year.

Eaton has been strong in materials handling for 100 years. Both in design and manufacture. That's why Yale trucks are strong. Eaton engineers them that way. Next time you need a lift truck (or a fleet of them) talk to us.

Eaton Limited, Materials Handling Division, Waddensbrook Lane, Wednesfield, Wolverhampton, WV11 3SW. Tel: Willenhall (0902) 66955.



Eaton's new Yale NER reach truck is one of many models which will beat the challenge.

Eaton makes Yale lift trucks stronger

EATON Materials Handling

American border patrol officers question three Mexicans, unharmed as they tried to slip across into the U.S.

Joe Rogaly

In 1965 this policy was abandoned, and to-day all countries are subject to a

This would all be remarkable enough if immigration simply stopped there. But when one

To the British eye another peculiarity of the American

On the Right, however, the continued influx of cheap labour—to work in agriculture and menial positions in Texas or in sweatshops in Chicago, or in domestic kitchens in Washington D.C.—is not viewed with any particular distaste by Americans who might be Thatcherite Tories in the

to report until the "autumn of next year"). Another is that it is widely believed that the problem boils down to the emigration and flow of manual labour across the 2,000-mile border with Mexico and that this can be related to the economic cycle.

It is certainly true that most

walk into Texas as though they own it, and some of them think they still do. One is reminded of the "special case" of labourers from the Republic of Ireland taking the trip to Britain. In both instances it is almost impossible to assess how many plan to stay permanently if they can, and how many are

According to the Domestic Council's report, two-thirds of all immigrants, from all source countries, settle in one of six states—New York, California, New Jersey, Illinois, Pennsylvania and Massachusetts. Taken together they already account for about a third of the already low growth in the U.S. population, and the proportion is increasing. In some local areas—Los Angeles, for example—these familiar complaints that they benefit from free medical care and social services without contributing to taxes is being heard. At the top level, in Washington, the familiar response—that by and large they contribute more to the economy than they take out—

•



interpack
Düsseldorf
8th to 14th June 1978

COMPANY NEWS

Laird winning significant orders

SIGNIFICANT ORDERS have already been won in the current year in all divisions of Laird Group other than in the metal industries sector, says Sir Ian Morrow, the chairman, and while demand for steel continues at a low level, elsewhere the group's manufacturing capacity is fully occupied and currently there is no shortage of opportunities.

Members are told in his annual statement that the group has adequate financial resources to back further development and these resources will be enhanced in due course by the receipt of nationalisation compensation. As reported March 28, pre-tax profit advanced from £3.0m. to £3.9m. for 1977 on turnover of £119.2m. (1976: £119.2m.). Stated earnings are 15.79p (14.2p) per 25p share and the dividend totals 2.937p (2.65p) net. A one-for-one scrip issue is proposed.

On a CCA basis, taxable profit was reduced to £2.5m. after adjustments for depreciation of £1.2m. cost of sales £9.9m., less earnings of £0.5m. Net cash balances decreased by £0.2m. (£2.5m.) at the year end. A divisional breakdown of turnover and profit shows (in £000's): metal industries £23,831 and £241 (£141), transport engineering £28,778 (£25,716) and £1,811 (£2,737), motor components and other engineering £48,945 (£43,685) and £3,720 (£4,792), and shiprepairing £9,937 (£9,967) and £625 (£631) profit.

A geographical analysis shows (in £000's): U.K. turnover £90,749 and profit £3,283 (£3,801); EEC, excluding U.K. £24,978 (£20,125) and £3,831 (£2,681). The chairman reports that the metal industries division managed to remain profitable despite the international steel recession and heavy competition from imports. At the same time, the transport engineering sector increased profits by over 37 per cent, and motor components and other engineering improved by 10 per cent.

In the shiprepairing division, Western Shiprepairs, following its losses in 1976, returned a further deficit of £0.5m. In 1977, exhaustive efforts were made to improve the position, states Sir Ian, but the recession in oil tanker repair work made it impossible to restore profitability.

As a result arrangements are now in hand to place the Western shiprepair yard on a care and maintenance basis. However, in their report, the auditors say the financial effects of this decision are uncertain, particularly in relation to fixed assets, which have been included in the group accounts on a going concern basis at an amount of £2,140,000. The rest of the shiprepairing division was profitable in 1977 and is expected to remain so in 1978, adds the chairman.

Aurora set

In 1978, Aurora Holdings, general and precision engineering, expects to show continued progress and further asset improvement in spite of the political, economic and trading uncertainties the group foresees.

Mr. Robert Atkinson, the chairman, tells shareholders in his annual statement.

As reported on March 31 pre-tax profits for 1977 rose from £2.3m. to £3.1m. and the dividend is increased from 4.25p to 5.25p. On a CCA basis adjusted pre-tax profit is £1.8m. after depreciation £0.5m., cost of sales adjustment £0.87m. plus a gearing adjustment of £0.6m.

Orders in hand at the end of 1977 were £7.7m. Mr. Atkinson says, showing a significant increase over 1976. Although the group's situation has improved, he says there is still no real sign that recovery from the world economic recession is imminent. There was an increase in net liquid funds of £270,000 compared with a decrease of £2.6m. Meeting, Sheffield, on May 25 at 12.30 p.m.

Confidence in Websters' strength

The strength of Websters Publications over the last few years augurs well for the group in the future for which the group plans, says Mr. Peter Lane, the chairman, in his annual statement.

As reported on April 14 the group turned in taxable profits of £0.91m. for the 15 months to end-1977 compared with £0.34m. for the previous year and the dividend is 1.875p (1.375p) for the period against 1.2p.

Subsidiary Bookwise achieved a further increase in its share of the market and is well placed to take advantage of the expected improvement in consumer spending on books during the current year. The group's bookshops showed encouraging growth in turnover and profits during the period, the chairman adds.

In the publications and printing division Mr. Lane says the group is beginning to feel the advantages of the substantial expenditure on equipment at the Chesham Press. And he adds that Websters has further improved its competence with regard to the group's various publications.

There was an increase in working capital at the end of the period of £273,000 compared with a decrease of £29,000 for the 1976-77 year.

Meeting at 77, London Wall, E.C.4, on May 23 at noon.

Hawkins and Tipson on target

TURNOVER FOR the six months to February 28, 1978, of Hawkins and Tipson expanded from £8.17m. to £8.4m. but pre-tax profits were virtually unchanged at £22,000 against £20,000 before higher tax of £183,000 compared with £50,000. The directors state that the forecast of annual profits of least

equal to last year's £1.23m. should be attained if trade continues as at present and exports hold up through the summer.

No provision is made in the periods for U.K. deferred tax by reason of allowances for fixed assets or stock increases where it is considered that the reduction in liability will continue for the foreseeable future.

The interim dividend is held at 1p net per 25p share. Last year's final was 2.90p.

The group manufactures ropes, wire products, furniture, etc.

Beauford encouraged so far

IN HIS annual statement Mr. G. Crawford, the chairman of Beauford Group says that the directors are budgeting for an increase in both turnover and profits for 1978 and results so far achieved lead him to believe that the budgets will be met.

As reported on April 14 pre-tax profits rose from £433,261 to £522,261 in 1977 on turnover of £4.2m. (£4.3m.). Net liquid funds were £9,039 lower (£340,178 higher) at the year end.

Inflation adjusted accounts show CCA pre-tax profits at £598,000 after adjustments for cost of sales £65,000, depreciation £137,000 and gearing £78,000. All activities contributed to the improved results. The engineering companies expanded their markets, and the industries they serve now extend from steel to medical equipment. The group is thus reducing its dependence on one industry.

During the year the group has invested £373,000 on fixed assets bringing the total spent during the last four years to not far short of £1m.

While maintaining this level of expenditure the company has been able to strengthen its balance sheet. Liquidity has been improved, net current assets have been increased and assets per share, before providing for deferred tax, but without taking into account the excess of the current value of freehold properties over their book value, at 53p compares with 43p the previous year.

Meeting, Huddersfield, on May 25 at noon.

Portals in good condition

IN HIS annual statement, Mr. John Sheffield, the chairman of Portals Holdings, says that the group is in good condition and is coping with the difficult trading conditions that now prevail in the markets of the world. The balance sheet is healthy, the group has liquid resources of

£7.5m. to be used to strengthen the business either by internal investment or by acquisition and gearing is minimal.

The growth in water treatment and engineering profits is expected to continue in 1978 but the papermaking division will be hard pressed to maintain its profits.

The heavy capital investment programme has begun at Overton Mill but, as yet, no suitable acquisitions have been found for either the water treatment or engineering divisions.

At the year end future capital spending stood at £6.9m. (£1.05m.) with £5.9m. (£0.76m.) not contracted for.

As reported on April 14, pre-tax profits rose from £6.8m. to £7.7m. in 1977 on turnover of £77.37m. (£84.36m.).

More company news, Pages 31 & 33

Inflation adjusted accounts show current cost pre-tax profits of £7.43m. (£4.8m.) after a depreciation adjustment of £900,000 (same) and a cost of sales adjustment of £750,000 (£1.65m.), offset by a gearing adjustment of £100,000 (£250,000).

As at April 13 the Bank of England held 90.6 per cent. of the equity.

Meeting, Connaught Rooms WC on May 24 at 12.30 p.m.

Bronx hit by steel reduction

Order intake level at Bronx Engineering Holdings for 1978 is not making the progress that there has been in the past few years, says Mr. B. Grosvenor, the chairman, in his annual statement. And the home market, he says, will be affected by the reduction in volume of orders expected from the British Steel Corporation. Thus he anticipates that group profit will fall considerably below that achieved in the 1976-77 year.

As reported on March 30 pre-tax profits for the year to November 30, 1977 show little change at £700,281 against £704,707 after a first half profit of £372,000 to £368,000. The dividend is 11p from 1.424p to 1.872p net per 10p share.

A statement of source and application of funds shows an increase in working capital of £73,400 against £58,200.

Meeting, Birmingham on May 24 at noon.

CADBURY/PETER PAUL

Peter Paul Inc. shareholders, have approved the merger with Cadbury Schweppes at a special meeting.

Under the agreement, Peter Paul holders received £27.5 cash for each share held.

BIDS AND DEALS

Johnson accepts new Hepworth terms

The Board of H. and R. Johnson-Richards Tiles has now agreed to accept an increased offer from Hepworth Ceramic Tiles. The cash element of the terms has been lifted from 39p to 58p. The full terms are now one Ordinary share of Hepworth plus 58p cash for each share of Johnson, and put a value of 184p on each Johnson share, against 121p in the market last Friday.

The increased offer has been made following further discussions with the Board of Johnson and its financial advisers, S. C. Warburg. Johnson has informed Hepworth that the estimate of profits before tax for the year ended March 31, 1978, is some £5.5m., a material increase on the previous indication. The profit is after taking account of losses of around £0.8m. incurred by the U.S. subsidiary of Johnson; the Board of Johnson has informed Hepworth that further losses are not expected to arise in the year ending March 31, 1979.

The Preference offer remains at 70p per share cash. J. Henry Schroder Wagg and Co. will post the revised offer document on behalf of Hepworth as soon as possible.

BEC BOOSTS AIRCO HOLDING

BOC International reports that some 4,949,000 shares of common stock of Airco Incorporated and about \$105,553,000-worth of Airco Convertible Debentures, the equivalent of about 210,000 shares, had been tendered to its subsidiary BOC Financial Corporation. BOC's ownership to about 92 per cent. of Airco.

The directors of BOC have extended the tender offer for one week to 5 p.m. New York time on May 5. Debentures have been previously called for redemption on May 4 and unless tendered before then or converted will mature on May 4.

Letraset forecasting over £7m. profit

Letraset International, the trading printing company, will show pre-tax profits in excess of £7m. for the year ended April 30. The forecast is made by the Board in the offer document for the company's expansion of its profitable business.

The document detailing the agreed bid, which places a value of £13m. on Randall, also shows a substantial share sales by Letraset directors during the past year. Mr. W. Fieldhouse, the chairman, has disposed of a book value of £1m. but a market value nearer £4m.

As a result of the acquisition, Letraset's net tangible assets attributable to Ordinary holders will rise from £10.1m. to £16.5m.

Mr. J. Randall, chairman of the Randall group, says in his letter recommending acceptance of the bid, that to ensure continuity of management all the Randall directors, with the exception of Mr. S. A. G. Mousie, who retires in July this year, are entering into service contracts with Letraset, and will continue to manage the trading operations.

On the dividend front Letraset intends to declare a second interim dividend of 1p for the year ending April 30 of 4.67p net per share. This will be paid in early October and together with the interim already paid of 0.89p the total for the year comes out at 5.56p net, an increase of around 90.8 per cent.

SIMCO MONEY FUNDS (Saurin Investment Management Co. Ltd.)				
Rates of deposits of £1,000 and upwards, w/e	7-day Fund	30-day Fund	90-day Fund	12-month Fund
Mon.	6.213	6.213	6.213	6.213
Tues.	6.526	6.526	6.526	6.526
Wed.	6.572	6.572	6.572	6.572
Thurs.	6.802	6.802	6.802	6.802
Fri./Sun.	7.085	7.085	7.085	7.085
2-Month Fund	7.126			

The sales took place between April 25, 1977 and April 25, 1978. Although no reasons are given in the document, the directors are understood to have made his sale for personal reasons.

The document also says that Randall is a co-defendant in an action brought in New York for damages for personal injuries allegedly suffered by a number of its products. "Although the action involves a claim for \$3.5m., it is understood that the claimants in the action have approached the insurers of one of the other co-defendants with a view to settling the action for a sum in the region of \$150,000," says the document.

It adds: "The same insurers have approached Randall's lawyers in New York on behalf of such co-defendant with a suggestion that a joint settlement be negotiated with the claimant. Randall is not accepting any liability in this matter." It is understood that Randall is fully covered by a products liability insurance contract.

Industrial Bank of Japan Finance Company N.V.
U.S. \$50,000,000 Guaranteed Floating Rate
Notes due November 1982.
For the six months
1st May 1978 to 1st November 1978
In accordance with the provisions of the Note, notice is hereby given that the rate of interest has been fixed at 8 1/2 per cent. and that the interest payable on the relevant interest payment date, 1st November 1978 against Coupon No 2 will be U.S. \$42,17.
By: Morgan Guaranty Trust Company of New York, London Agent Bank.

LOCAL AUTHORITY BOND TABLE

Authority (telephone number in parentheses)	Annual gross interest	Interest payable	Minimum sum	Life of bond
Barking (01-582 4500)	9 1/2	1-year	5,000	5
Barnsley Metro. (0226 20323)	10	1-year	250	4-7
Elmbridge (09322/28, 28544)	10 1/2	1-year	1,000	4-7
Knowsley (051 5486535)	10 1/2	1-year	1,000	3-7
Redbridge (01-478 3020)	10 1/2	1-year	200	3-7
Rushcliffe (0602 811511)	9 1/2	1-year	500	3
Shoreditch (0702 49451)	10	1-year	250	5-6
Thurrock (0375 5322)	10 1/2	1-year	300	4
Thurrock (0375 5122)	10 1/2	1-year	300	5-8
Wrekin (0932 503051)	10 1/2	yearly	1,000	5

FINANCE FOR INDUSTRY TERM DEPOSITS
Deposits of £1,000-£25,000 accepted for fixed terms of 3-10 years. Interest paid gross, half-yearly. Rates for deposits received not later than 5.5.78.

Terms (years)	3	4	5	6	7	8	9	10
Interest %	9 1/2	10	10 1/2	10 3/4	11	11 1/4	11 1/2	11 3/4

Rates for larger amounts on request. Deposits to and further information from The Chief Cashier, Finance for Industry Limited, 91 Waterloo Road, London SE1 8XP (01-928 7822, Ext. 177). Cheques payable to "Bank of England, a/c FFI". FFI is the holding company for IFCF and FCI.

APCM chief sees brighter future

IN HIS annual statement, Mr. J. A. Binny, the chairman of Associated Portland Cement Manufacturers says that the future of the company is brighter than for some years, provided it is allowed to earn a reasonable return on its investment.

The investigation by the Price Commission will find the group as efficient as any in Britain "and we trust we will not be prevented from maintaining our prices at the level necessary to ensure our continued prosperity and growth."

As reported on April 14, pre-tax profits finished 1977 marginally higher at £47.2m. (£45.4m.) after slipping from £23.5m. to £22.5m. in the first half.

Mr. Binny says this has been a difficult period for the company but the directors are beginning to see an improvement in the prospects and anticipate an increase in cement demand in 1978 for the first time in four years.

The group has recently replaced a large part of its lorry fleet and is considering replacing some of its older U.K. plant. The directors plan to spend £35m. on capital projects in 1977.

1977 shipments of cement and clinker were nearly doubled and the directors are confident of shipping more in 1978. They are also looking for an increase in export prices. Anticipated further growth overseas will mean a larger proportion of total earnings is likely to come from investments and consultancy activities overseas.

R. H. Cole takes steps to improve potential

In his annual statement Mr. Peter Cole, chairman of R. H. Cole says as anticipated the high level of performance achieved in the certain subsidiary activities are first six months were not met being reduced to the remainder of the year saw an easing in demand greater potential for expansion, with margins coming under pressure.

This pattern of business was generally experienced by the chemical industry in 1977 and is expected to continue in 1978. However, it remains confident that the group is now well placed to overcome the present uncertainties and to play a significant role in the many industries served.

The group's cash resources are being maintained at a satisfactory level and will be sufficient to finance the expansion of the business anticipated during the year. Proceeds of the properties being vacated by Cole Plastics and East Angles will be applied to reducing secured borrowings.

As already reported, turnover for 1977 amounted to £23.5m. (£18.1m.) and taxable profits improved from £0.8m. to £1.1m. The value of goods exported from the U.K. totalled £1.98m.

nu-swift

A great name in fire fighting
* Record turnover of nearly £9 million. Profits earned: £908,009.
* Maximum permitted Dividends declared.
* Subsidiary company formed in Spain.
* Two latest ranges of Dry Powder Extinguishers first of any manufacture to be granted BSI Kitemark for compliance with new British Standard 5423.
* Increased sales of improved Quicksilver Smoke Detector, Model 7576.

Extracts from the Review by the Chairman, Mr. Ivan Dorr, of the 1977 Accounts of Nu-Swift Industries Limited.

The 18th Annual General Meeting will be held at the Savoy Hotel (Rivers Entrance), London, on Friday, the 12th May, 1978, at 3 p.m.

Complete Review and Accounts, or full details of Nu-Swift equipment, from Dept. CH 78, Nu-Swift International Limited, Eland, West Yorkshire, HX5 9DS. Eland (0422) 72862 & 76811 (12 lines). Telex: 51.384.

Principal Subsidiary of NU-SWIFT INDUSTRIES LIMITED.

London Showrooms: Nu-Swift Fire Protection Centre, 122 Regent Street, London W1R 6QD. 01-734 5724 (3 lines).

CORY
CHEMICAL COLOUR MANUFACTURERS

Mr. S. J. S. Eley, chairman, reports on 1977:

* In this the 150th anniversary year of the founding of the business, I am able to report a record turnover and profits. Turnover amounted to £2,575,406—an increase of 38 1/2%—and total pre-tax profit of £591,530 represents an increase of some 34% over the previous year.

* The recommended final dividend on the ordinary shares of 0.3375p per share is the maximum rate we are permitted to pay under current legislation.

* During 1977, we spent some £101,000 on new plant and equipment. Modernisation or replacement of older plant will continue in 1978 and plans have been approved for the building of an extension of the administrative block which will make more space available to laboratory and office staff.

* The fall in demand experienced by some companies in the chemical industry in the latter part of 1977 is now affecting our sales, which for the first three months of 1978 were lower than in the comparable period last year. Unless there is an upturn in demand during the rest of the current year we cannot expect to maintain in 1978 the profits achieved in 1977.

BOURNE COURT AND COMPANY LIMITED
NATHAN WAT, LONDON SE8 8AY

PORTALS

WATER TREATMENT AND ENGINEERING

1977 Divisional Sales — £57.5m
1977 Divisional Profits — £3.3m

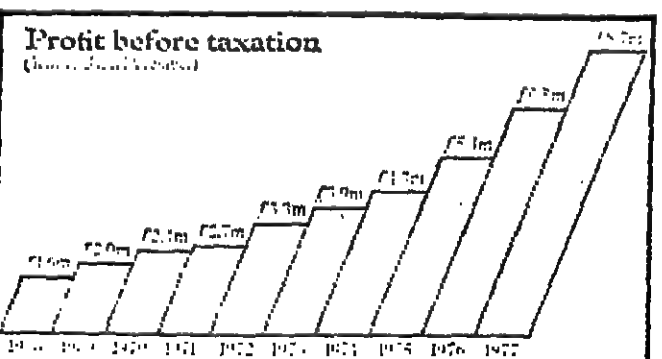
This division is soundly based with a huge spread of markets around the world and great opportunities as we have barely scratched the surface of some markets.

BANK NOTE AND SECURITY PAPER

1977 Divisional Sales — £22.8m
1977 Divisional Profits — £5.2m

This division continues to be the leading Bank Note paper manufacturer in the world and we continue to expand the demand for security in other valuable documents.

The profits from the papermaking division have tended to move in a cyclical pattern and we have seen a plateau in papermaking profits every 5-7 years. Water treatment and engineering division profits, on the other hand, display a steady pattern of growth. This has happened to some extent in 1977 and we expect it to continue in 1978.



Summary of Results	1977	1976
Group turnover	77,369	64,363
Profit before taxation		
Bank Note and Security Paper	5,179	4,799
Water Treatment and Engineering	3,298	2,162
Property	576	522
Less central costs and interest	9,053	7,483
	377	683
Basic Earnings per share	24.21p	21.85p
Ordinary dividend	7.87p	7.00p

Outlook

"The co-operation of the people who work in Portals has been of a high order. We have been developing our management skills. We have liquid resources that we will use to strengthen our business. Our gearing is minimal. Thus Portals is in good conviction to cope with the difficult trading conditions that now pertain in the markets of the world." — John V. Sheffield, Chairman



Portals Holdings Limited

Copies of the 1977 Report and Accounts are available from:
The Secretary, Laverslade Mill, Witchurch, Wiltshire RG28 7NR.

Financial Times Tuesday May 2 1978

Pending dividends timetable

The dates when some of the more important company dividend payments may be expected in the next few weeks are given in the following table. Dates shown are those of last year's announcements, except where the forthcoming Board meetings (indicated thus) have been officially published. It should be emphasised that the dividends are declared will not necessarily be at the amounts or rates per share shown in the column headed "Announcement last year". Voluntary profit figures usually accompany final dividend announcements.

Company	Date	Announcement last year	Announcement this year
British Airways	May 12	Int. 5	Int. 5
British Petroleum	May 12	Int. 5	Int. 5
British Telecom	May 12	Int. 5	Int. 5
British Overseas Airways	May 12	Int. 5	Int. 5
British Airways	May 12	Int. 5	Int. 5
British Petroleum	May 12	Int. 5	Int. 5
British Telecom	May 12	Int. 5	Int. 5
British Overseas Airways	May 12	Int. 5	Int. 5
British Airways	May 12	Int. 5	Int. 5
British Petroleum	May 12	Int. 5	Int. 5
British Telecom	May 12	Int. 5	Int. 5
British Overseas Airways	May 12	Int. 5	Int. 5

Share price

Share	Price
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50

Public Works Loan Board rates

Years	Rate
1 to 5	10.50
6 to 10	11.00
11 to 15	11.50
16 to 20	12.00
21 to 25	12.50
26 to 30	13.00

BASE LENDING RATES

Bank	Rate
ABN Bank	10.50
Allied Irish Banks Ltd.	10.50
American Express Bank	10.50
Amro Bank	10.50
A.P. Bank Ltd.	10.50
Bank of America	10.50
Bank of Canada	10.50
Bank of China	10.50
Bank of Cyprus	10.50
Bank of India	10.50
Bank of Japan	10.50
Bank of Korea	10.50
Bank of London	10.50
Bank of Mexico	10.50
Bank of New York	10.50
Bank of Paris	10.50
Bank of Portugal	10.50
Bank of Rome	10.50
Bank of Spain	10.50
Bank of Sweden	10.50
Bank of Switzerland	10.50
Bank of Taiwan	10.50
Bank of Thailand	10.50
Bank of Tokyo	10.50
Bank of Union	10.50
Bank of Vietnam	10.50
Bank of West	10.50
Bank of Yugoslavia	10.50
Bank of Zaire	10.50

RECENT ISSUES

Company	Issue
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50

EQUITIES

Company	Price
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50

FIXED INTEREST STOCKS

Company	Price
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50

"RIGHTS" OFFERS

Company	Price
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50
British Airways	10.50
British Petroleum	10.50
British Telecom	10.50
British Overseas Airways	10.50

NEWS ANALYSIS—ALCAN CONVERSION

Slice of the action for British holders

BY JAMES BARTHOLOMEW

To-day is the first time this year on which Alcan Aluminium (U.K.) convertible loan stock holders can give notice that they want to switch into Ordinary shares.

Most of them will certainly do so because Alcan announced a substantial dividend this year, and the income advantage of holding the Ordinary shares is now clear cut.

At the end of this month, the conversion will take place and a Stock Exchange listing will almost certainly follow. For the first time the British public will be able to invest in sizeable amounts of money directly in a U.K. aluminium company.

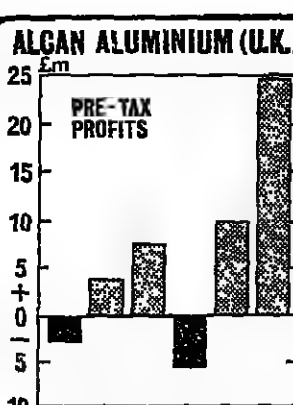
Alcan Aluminium (U.K.) is a subsidiary of the Canadian company, one of the two giants of the aluminium industry along with Alcoa. The U.K. subsidiary issued a 9 per cent. Convertible Unsecured Loan Stock in 1969 to help finance a new smelter at a time when the British Government was keenly subsidising import substitution programmes.

Substantial grants were offered to companies willing to set up aluminium smelters and the three major smelters currently operating in the U.K. are the direct result.

British Aluminium (owned by Tube Investments and Reynolds Metals of America) has one at Invergordon; Kaiser Aluminium in partnership with Rio Tinto-Zinc has another at Ammanford; and the third, at Lynemouth in Northumberland belongs to Alcan Aluminium (U.K.).

Alcan (U.K.) also has important aluminium semi-fabricating interests in the largest of U.K. companies, and less significant downstream products such as aluminium windows and foil wrapping for kitchen use.

Aluminium is a cyclical industry, as Alcan's profit table shows. World-wide aluminium production is growing at about 8 per cent. per annum over the past 15 years but the majors have not benefited because capacity has increased even faster. Then in 1976 the downturn was so severe that the majors decided to raise in capital investment and margins recovered.



The president of Kaiser Aluminium and Chemical in America predicted last week that world capacity will increase at only 3 per cent. per annum over the next four years. So although the annual growth in demand is probably now down to about 5 per cent. the background for supply and demand looks healthy in the medium term.

At the moment the North American aluminium industry is booming, with Alcan's Canadian parent producing a 60 per cent. rise in first quarter profits. In the U.K. trading has been much less buoyant and prices have fallen behind those on the American continent.

Alcan (U.K.) has predicted "disappointing" profits in the six months to June but the British market has bottomed out. The second half should see a recovery in the aluminium industry as a whole, and the U.K. market should follow suit.

Alcan (U.K.) also has important aluminium semi-fabricating interests in the largest of U.K. companies, and less significant downstream products such as aluminium windows and foil wrapping for kitchen use.

Aluminium is a cyclical industry, as Alcan's profit table shows. World-wide aluminium production is growing at about 8 per cent. per annum over the past 15 years but the majors have not benefited because capacity has increased even faster. Then in 1976 the downturn was so severe that the majors decided to raise in capital investment and margins recovered.

Alcan (U.K.) also has important aluminium semi-fabricating interests in the largest of U.K. companies, and less significant downstream products such as aluminium windows and foil wrapping for kitchen use.

Aluminium is a cyclical industry, as Alcan's profit table shows. World-wide aluminium production is growing at about 8 per cent. per annum over the past 15 years but the majors have not benefited because capacity has increased even faster. Then in 1976 the downturn was so severe that the majors decided to raise in capital investment and margins recovered.

Alcan (U.K.) also has important aluminium semi-fabricating interests in the largest of U.K. companies, and less significant downstream products such as aluminium windows and foil wrapping for kitchen use.

But last autumn, stockbroker Grieson Grant pertinently reminded everyone that Alcan (U.K.) had said in the prospectus for the convertible: "It is our intention that from 1975 onwards the general policy should be to distribute as dividends on the Ordinary shares 50 per cent. or more of the profits available for distribution."

Alcan has duly honoured this commitment and the loan stock, which had been down as low as 57p in 1977, closed last week at 147p. Conversion now offers a 50 per cent. rise in income and most holders are expected to switch. If all of them were to do so, the British stock would become 20 per cent. or 22 per cent. of the Finance Corporation for industry also converted another loan stock.

The parent considered the possibility of making an offer to buy in the outstanding loan stock. But it decided against this, believing it politically wiser in the long term to have a substantial U.K. shareholding. Moreover, a London listing will enable Alcan (U.K.) to raise funds locally to help pay for the extension to the smelter in three to five years' time.

Even after conversion, Alcan (U.K.) will be fairly highly leveraged. In the last balance sheet borrowings of £58.4m. were supported by shareholders' funds of £38.4m. After conversion those figures would be changed to £76.4m. and £73.4m. respectively. Capital employed also includes large amounts of government grants (£14m.) and deferred tax (£20m.)

Despite the strong rise of the stock over the past year, the rating still does not look demanding. At 147p, the effective yield on the Ordinary would be 10.2 per cent. On conversion, the yield would be 10.5 per cent. The p/e ratio would be 6.1.

So the probability is that in a few months' time the Stock Exchange will be able to welcome to its lists a major new engineering company with a market capitalisation of £58m. of which £13m. would be in U.K. hands.

Another week of extreme nervousness in the London money market, and a further 500m. will be lent to the market at a fixed rate of 11.5 per cent. On Tuesday some bills were bought for resale to the market at a fixed rate of 11.5 per cent. On Wednesday the Bank of England bought a small number of Treasury bills when overall credit was thought to be in slight surplus.

On Friday the assistance was probably less than enough however, even though any shortage of funds was rather surprising on the public factors including the supply of money.

Applications for Treasury bills were only around £500m. £500m. bills last week, and the average rate of discount, at 6.88 per cent., was very close to the border point for a rise in the M.L.R. The authorities appeared to take a fairly relaxed view of the situation however, in their market management, and by the fact that a further £500m. will be lent to the market at a fixed rate of 11.5 per cent. On Friday, even though Treasury bills remain very unattractive on a yield comparison with other paper.

MINING NOTEBOOK

It's a long hard road for the rock-cutter

BY LODESTAR

IT HARDLY seems as long as ten years since a member of the mining fraternity just back from Johannesburg rushed excitedly to inform his office with what seemed then to be tremendous news.

It was that new rock-cutting techniques in the South African gold mines would slash costs owing to a reduction in the amount of hard rock that would have to be extracted with the increase in the grade of ore milled through more selective mining; and do away with blasting by explosives thus making for safer working conditions.

Now, a decade later, the new methods are still not in general use and problems remain to be overcome even after ten years of intensive investigations. But the promise is still there and a potted history of progress to date should make shareholders realise the patience needed by the industry in fighting steep inflation by new technical processes.

The Chamber of Mines of South Africa has itself considered such an exercise worth while. Rock-cutting is a rock-breaking method which consists of cutting a slot in the rock above the reef (the ore-bearing layer) and allowing it to be removed relatively easily by simple mechanical means. Different techniques are needed from those involved in the mechanical mining of coal owing to the hard and abrasive granites which carry the gold in South Africa.

Experiments were started at the Doornfontein mine as long ago as 1968. The first ones were successful in that they showed the problems that had to be overcome and revising a number of preconceived notions that proved incorrect. After some two years it was at last indicated that the rock-cutting principle was indeed a practical possibility.

The second phase was devoted to the development of the rock-cutting machine. It was not until 1973 that this culminated in several prototype machines for underground trials on a pilot basis. These trials in turn led to some two to three years.

Securitor had provided a night patrol service and had employed a patrolman to guard the mine. Musgrove had deliberately started a fire—said he had intended it only to be a small fire but it had got beyond control—and the factory was virtually destroyed; Musgrove remained guilty to causing malicious damage and was sentenced to three years in prison.

Lord Denning also referred to the Unfair Contract Terms Act 1977 which allows the courts to consider the fairness and reasonableness of exclusion clauses: the Act, of course, was not applicable and so did not figure in the pleadings, but Lord Denning thought that the Act pointed the way the courts should go.

The courts, said Lord Denning, would not allow a party to rely upon an exemption or limitation clause where it would not be fair and reasonable to allow reliance on it.

The Chamber says that at the beginning of the trials there was a vast range of un-uniform questions had not even been asked. At their end in 1976 successful solutions had been found to most of the riddles and the costs of the operation had been brought within bounds.

They amounted to R17.63 per centum mined compared with an average of R11.30 to R18.50 in the deep-level mines using explosive techniques in the 1973-74 period. Two outstanding problems remained.

The mining rate and labour productivity were lower than considered acceptable. Even so, production trials started in 1976 using two new machine systems. Slot-cutting rates were improved by between five and ten times by a technique discovered and developed at the Mining Technology Laboratory making use of high-pressure water jets directed just ahead of the leading edge of the cutting tool.

The productivity problem remains to be overcome, however. Breaking the rock from the face quickly and efficiently have proved particularly labour-intensive. So mechanisation of these processes are now being investigated.

Thus after ten years there is still some way to go but the Chamber believes that the new methods will be able to overcome the problems that had to be overcome and revising a number of preconceived notions that proved incorrect. After some two years it was at last indicated that the rock-cutting principle was indeed a practical possibility.

The second phase was devoted to the development of the rock-cutting machine. It was not until 1973 that this culminated in several prototype machines for underground trials on a pilot basis. These trials in turn led to some two to three years.

Securitor had provided a night patrol service and had employed a patrolman to guard the mine. Musgrove had deliberately started a fire—said he had intended it only to be a small fire but it had got beyond control—and the factory was virtually destroyed; Musgrove remained guilty to causing malicious damage and was sentenced to three years in prison.

Lord Denning also referred to the Unfair Contract Terms Act 1977 which allows the courts to consider the fairness and reasonableness of exclusion clauses: the Act, of course, was not applicable and so did not figure in the pleadings, but Lord Denning thought that the Act pointed the way the courts should go.

The courts, said Lord Denning, would not allow a party to rely upon an exemption or limitation clause where it would not be fair and reasonable to allow reliance on it.

and distribution of soaps and chemicals. Recently the shares took off from a low of 13 cents in Sydney to reach 66 cents, this time on golden hopes in Fiji. Last week they jumped afresh to 83 cents following the issue of a report on the new venture.

This gave assays from a sampling programme at the Vuda Valley porphyry gold find. An area of 7.3 hectares of a total 688 hectares has been gridded and yielded values of up to 34.5 dwts gold per tonne and an average from samples taken of 13.5 dwts, very high it is reckoned for a deposit of this type.

They could, of course, come from an enriched surface oxidised zone. Mineralisation is also claimed to have been established by panning in an old adit at a depth of about 30 metres (98 feet) and the directors say it can be assumed that mineralisation should be continuous down to at least this depth. No assays from the adit are given, however.

Any venture investor who wants a "punt" (in use the down-under expression for gamble) in Australia has no market as yet developed in the shares in Barymin's buy.

Three weeks ago Barymin Explorations' progress in taking its Vuda lead deposit in Nova Scotia to production was reported here. The nearby mill then mentioned as being available has now been bought for a modest \$0.3m. (£136,000).

The initial production rate of 530 tons of ore daily is planned to produce from 22m. lbs of lead in concentrate annually and to give what is described in the feasibility study as an "attractive" return on capital employed at lead prices of around £300 a tonne. Present London quotation is £265.

The final requirement is for Barymin to raise about another \$2.5m. (£1.2m.) for the project. Negotiations for this are stated to be in progress. The shares are 53p in London.

Securitor's contract provided that the company could not be responsible for any injurious act or default by any employee unless it could have been foreseen and avoided by the exercise of due diligence on the part of the company.

It also ruled that in respect of loss by fire, responsibility would attach to the company unless it was solely acting in the course of his employment, or the employee acting in the course of his employment; beyond these restrictions there were further financial limitations applicable if in fact there was liability.

INSURANCE Securitor judgment will attract careful study

BY OUR INSURANCE CORRESPONDENT

MEMBERS of the British security industry have, until now, operated behind curtains which have excluded liability for failure, wholly or partly, to provide those goods and services that the customer has purchased, though in this respect the British security industry has been little different from the majority of other suppliers of goods and services.

Exemption clauses apart, the industry has enjoyed a high degree of immunity from claims from customers because in the majority of cases, where there has been provable fault or negligence leading to the failure of a contract, the absence of a guard, it is the customers' insurers who have met the bill for the ransacked shop or the gutted factory.

Insurers have been reluctant to claim, partly because they rely so heavily on the industry for the provision of alarms, guards, armoured money carriers and so on to protect the risks they insure and partly because most of the security firms have liability insurance and a claim against a security firm after a fire or burglary is in practice a claim between insurers.

Moreover, if either the fire or liability risk is scheduled, as it often is, the this may well involve a claim between departments of the same office. So there has been litigation worth mentioning and so far as I know no reported decisions on the validity of any of the security industry's exclusion clauses until March of this year when the dispute between Photo Production and Securitor Transport reached the Court of Appeal, arising out of a fire at the plaintiff's factory at Gillingham, Kent.

Securitor had provided a night patrol service and had employed a patrolman to guard the mine. Musgrove had deliberately started a fire—said he had intended it only to be a small fire but it had got beyond control—and the factory was virtually destroyed; Musgrove remained guilty to causing malicious damage and was sentenced to three years in prison.

Lord Denning also referred to the Unfair Contract Terms Act 1977 which allows the courts to consider the fairness and reasonableness of exclusion clauses: the Act, of course, was not applicable and so did not figure in the pleadings, but Lord Denning thought that the Act pointed the way the courts should go.

The courts, said Lord Denning, would not allow a party to rely upon an exemption or limitation clause where it would not be fair and reasonable to allow reliance on it.

Securitor's contract provided that the company could not be responsible for any injurious act or default by any employee unless it could have been foreseen and avoided by the exercise of due diligence on the part of the company.

It also ruled that in respect of loss by fire, responsibility would attach to the company unless it was solely acting in the course of his employment, or the employee acting in the course of his employment; beyond these restrictions there were further financial limitations applicable if in fact there was liability.

It had been employed to protect the factory but instead, through their servant, they had deliberately burned it down, thereby doing the opposite of what they had contracted to do: this fundamental breach stopped the company from relying on its exemption clauses.

Lord Denning also referred to the Unfair Contract Terms Act 1977 which allows the courts to consider the fairness and reasonableness of exclusion clauses: the Act, of course, was not applicable and so did not figure in the pleadings, but Lord Denning thought that the Act pointed the way the courts should go.

The courts, said Lord Denning, would not allow a party to rely upon an exemption or limitation clause where it would not be fair and reasonable to allow reliance on it.

Securitor's contract provided that the company could not be responsible for any injurious act or default by any employee unless it could have been foreseen and avoided by the exercise of due diligence on the part of the company.

It also ruled that in respect of loss by fire, responsibility would attach to the company unless it was solely acting in the course of his employment, or the employee acting in the course of his employment; beyond these restrictions there were further financial limitations applicable if in fact there was liability.

McKechie Brothers

—a large group of industrial companies mainly in non-ferrous metal and engineering fields operating internationally.

INTERIM RESULTS—UNAUDITED			
	Half-year ended 31st January 1978	Year ended 31st January 1977	Audited
Sales	£71,387	£71,163	£150,611
Profit before Taxation	£6,786	£8,327	£15,723
Estimated Taxation	£3,165	£3,782	£7,087
Earnings attributable to Holding Company	£2,784	£3,206	£6,822
Ordinary Dividend	724	482	1,877
Earnings per Ordinary Share	5.9p	8.6p	17.3p

NOTE—Major Account: The depreciation attributable to the Group of metal stocks not covered by sales contracts, and not taken into account in this Statement, amounts to £254,000 after tax. Any adjustment required at 31st July 1978 will be dealt with as usual by transfer to or from Stock Reserve.

Extracts from the Review by Mr. C. C. Taylor, Chairman

U.K. acquisitions increased our stake in plastics processing, and made a significant contribution to improved U.K. profit. Continuing recession in South Africa and expected sharp fall in demand in New Zealand led to lower contributions from these areas.

Second half trading in the U.K. opened more strongly for companies supplying consumer goods. Overseas a slowly improving trend is becoming established.

NOTICE OF REDEMPTION TO THE HOLDERS OF

Ente Nazionale per l'Energia Elettrica (ENEL)

(Italian National Electric Energy Agency)

Guaranteed Floating Rate Loan Notes 1980

NOTICE IS HEREBY GIVEN, that pursuant to the Fiscal Agency Agreement dated May 27, 1970, there has been selected for redemption on May 31, 1978, through operation of the Sinking Fund, \$10,000,000 principal

amount of Ente Nazionale per l'Energia Elettrica (ENEL) Guaranteed Floating Rate Loan Notes 1980. The following are the serial numbers of the Loan Notes which will be redeemed, in whole or in part:

Loan Notes in the principal amount of \$1,000 bearing the prefix M to be redeemed in whole.

5017	728	10205	12670	14805	17420	19637	22051	23919	25381	26834	28191	29489	31025	32409	33518	34613	35688	36738	37867	38987	40082	41162	42204	43288	44368	45403	46483	47527	48571	49615	50659	51703	52747	53791	54835	55879	56923	57967	59011	60055	61099	62143	63187	64231	65275	66319	67363	68407	69451	70495	71539	72583	73627	74671	75715	76759	77803	78847	79891	80935	81979	83023	84067	85111	86155	87199	88243	89287	90331	91375	92419	93463	94507	95551	96595	97639	98683	99727	100171	101215	102259	103303	104347	105391	106435	107479	108523	109567	110611	111655	112699	113743	114787	115831	116875	117919	118963	120007	121051	122095	123139	124183	125227	126271	127315	128359	129403	130447	131491	132535	133579	134623	135667	136711	137755	138799	139843	140887	141931	142975	144019	145063	146107	147151	148195	149239	150283	151327	152371	153415	154459	155503	156547	157591	158635	159679	160723	161767	162811	163855	164899	165943	166987	168031	169075	170119	171163	172207	173251	174295	175339	176383	177427	178471	179515	180559	181603	182647	183691	184735	185779	186823	187867	188911	189955	190999	192043	193087	194131	195175	196219	197263	198307	199351	200395	201439	202483	203527	204571	205615	206659	207703	208747	209791	210835	211879	212923	213967	215011	216055	217099	218143	219187	220231	221275	222319	223363	224407	225451	226495	227539	228583	229627	230671	231715	232759	233803	234847	235891	236935	237979	239023	240067	241111	242155	243199	244243	245287	246331	247375	248419	249463	250507	251551	252595	253639	254683	255727	256771	257815	258859	259903	260947	261991	263035	264079	265123	266167	267211	268255	269299	270343	271387	272431	273475	274519	275563	276607	277651	278695	279739	280783	281827	282871	283915	284959	286003	287047	288091	289135	290179	291223	292267	293311	294355	295399	296443	297487	298531	299575	300619	301663	302707	303751	304795	305839	306883	307927	308971	310015	311059	312103	313147	314191	315235	316279	317323	318367	319411	320455	321499	322543	323587	324631	325675	326719	327763	328807	329851	330895	331939	332983	334027	335071	336115	337159	338203	339247	340291	341335	342379	343423	344467	345511	346555	347599	348643	349687	350731	351775	352819	353863	354907	355951	356995	358039	359083	360127	361171	362215	363259	364303	365347	366391	367435	368479	369523	370567	371611	372655	373699	374743	375787	376831	377875	378919	379963	381007	382051	383095	384139	385183	386227	387271	388315	389359	390403	391447	392491	393535	394579	395623	396667	397711	398755	399799	400843	401887	402931	403975	405019	406063	407107	408151	409195	410239	411283	412327	413371	414415	415459	416503	417547	418591	419635	420679	421723	422767	423811	424855	425899	426943	427987	429031	430075	431119	432163	433207	434251	435295	436339	437383	438427	439471	440515	441559	442603	443647	444691	445735	446779	447823	448867	449911	450955	451999	453043	454087	455131	456175	457219	458263	459307	460351	461395	462439	463483	464527	465571	466615	467659	468703	469747	470791	471835	472879	473923	474967	476011	477055	478099	479143	480187	481231	482275	483319	484363	485407	486451	487495	488539	489583	490627	491671	492715	493759	494803	495847	496891	497935	498979	500023	501067	502111	503155	504199	505243	506287	507331	508375	509419	510463	511507	512551	513595	514639	515683	516727	517771	518815	519859	520903	521947	522991	524035	525079	526123	527167	528211	529255	530299	531343	532387	533431	534475	535519	536563	537607	538651	539695	540739	541783	542827	543871	544915	545959	547003	548047	549091	550135	551179	552223	553267	554311	555355	556399	557443	558487	559531	560575	561619	562663	563707	564751	565795	566839	567883	568927	569971	571015	572059	573103	574147	575191	576235	577279	578323	579367	580411	581455	582499	583543	584587	585631	586675	587719	588763	589807	590851	591895	592939	593983	595027	596071	597115	598159	599203	600247	601291	602335	603379	604423	605467	606511	607555	608599	609643	610687	611731	612775	613819	614863	615907	616951	617995	619039	620083	621127	622171	623215	624259	625303	626347	627391	628435	629479	630523	631567	632611	633655	634699	635743	636787	637831	638875	639919	640963	642007	643051	644095	645139	646183	647227	648271	649315	650359	651403	652447	653491	654535	655579	656623	657667	658711	659755	660799	661843	662887	663931	664975	666019	667063	668107	669151	670195	671239	672283	673327	674371	675415	676459	677503	678547	679591	680635	681679	682723	683767	684811	685855	686899	687943	688987	689931	690975	692019	693063	694107	695151	696195	697239	698283	699327	700371	701415	702459	703503	704547	705591	706635	707679	708723	709767	710811	711855	712899	713943	714987	716031	717075	718119	719163	720207	721251	722295	723339	724383	725427	726471	727515	728559	729603	730647	731691	732735	733779	734823	735867	736911	737955	738999	740043	741087	742131	743175	744219	745263	746307	747351	748395	749439	750483	751527	752571	753615	754659	755703	756747	757791	758835	759879	760923	761967	763011	764055	765099	766143	767187	768231	769275	770319	771363	772407	773451	774495	775539	776583	777627	778671	779715	780759	781803	782847	783891	784935	785979	787023	788067	789111	790155	791199	792243	793287	794331	795375	796419	797463	798507	799551	800595	801639	802683	803727	804771	805815	806859	807903	808947	809991	811035	812079	813123	814167	815211	816255	817299	818343	819387	820431	821475	822519	823563	824607	825651	826695	827739	828783	829827	830871	831915	832959	833999	835043	836087	837131	838175	839219	840263	841307	842351	843395	844439	845483	846527	847571	848615	849659	850703	851747	852791	853835	854879	855923	856967	858011	859055	860099	861143	862187	863231	864275	865319	866363	867407	868451	869495	870539	871583	872627	873671	874715	875759	876803	877847	878891	879935	880979	882023	883067	884111	885155	886199	887243	888287	889331	890375	891419	892463	893507	894551	895595	896639	897683	898727	899771	900815	901859	902903	903947	904991	906035	907079	908123	909167	910211	911255	912299	913343	914387	915431	916475	917519	918563	919607	920651	921695	922739	923783	924827	925871	926915	927959	928999	930043	931087	932131	933175	934219	935263	936307	937351	938395	939439	940483	941527	942571	943615	944659	945703	946747	947791	948835	949879	950923	951967	952999	954043	955087	956131	957175	958219	959263	960307	961351	962395	963439	964483	965527	966571	967615	968659
------	-----	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

INTERNATIONAL FINANCIAL AND COMPANY NEWS

NORTH AMERICAN NEWS

Philip Morris in \$440m bid fight for Seven-Up

BY STEWART FLEMING

PHILIP MORRIS, the leading U.S. cigarette and beer producer and one of the most successful growth companies of the decade, has launched a bid to become a major force in the soft drinks industry with a \$440m takeover offer for Seven-Up.

The bid seems destined to run into fierce opposition from members of the founding families of Seven-Up who together control over 45 per cent of the stock. Seven-Up said today that the families do not intend to accept the \$41 a share tender.

It disclosed that the unwelcome bid followed an attempt to open discussions aimed at reaching a friendly merger agreement.

Seven-Up is the third largest U.S. soft drinks producer, with annual sales revenues of \$261m. In 1977, net income of \$25.5m. Earnings per share last year were \$2.36, putting the shares on an exit historic earnings multiple of 17 times at the proposed offer price. Before the announcement of the Philip Morris move, Seven-Up shares were trading at \$31.

Seven-Up is much smaller than the industry giants Coca-

Cola which has annual sales revenues of \$3.5bn. and PepsiCo, which also has sales revenues last year of \$3.5bn. \$1.3bn. of which had sales revenues beverages division.

Through its marketing first of Marlboro cigarettes and in the past five years, Miller beer, Philip Morris has built up an enviable record in the U.S. as a successful and aggressive competitor in the consumer industry. Last year its sales revenues topped \$2.2bn. and net income increased to \$335m. Earnings per share were \$5.60. A decade ago Philip Morris earned a net profit of \$49m.

Its major successes have been the development of Marlboro into the world's best-selling cigarette brand and the diversification into the brewing industry. In 1970 it bought Miller Brewing at the time the eighth highest U.S. brewer and a company which was well down the league in size and performance.

Under Philip Morris's control, Miller has been transformed, partly through the successful introduction and promotion of low calorie beer to an increasingly health-conscious U.S. public. This year Miller has replaced the

Joseph Schlitz brewing company as the second largest national brewer behind the industry leader Anheuser-Busch.

Industry analysts have been expecting to see a wave of rationalisation in the brewing industry with companies like General Foods and Coca-Cola rumoured to be examining the industry. Last year Coca-Cola bought the Taylor Wine company.

Philip Morris's tilt at the soft drink business through the acquisition of a company which has been emphasising the health advantages of its main products (Seven-Up is a clear carbonated drink similar to what is known in the United Kingdom as lemonade) could lead to the development of a powerful new competitor in the industry dominated by Coke and Pepsi.

But first judging from Seven-Up's initial reaction Philip Morris will have to succeed in its battle for control.

On recent Wall Street evidence, at least one possibility is that a search will be mounted for a friendly takeover. Seven-Up's shareholders can be persuaded to change their mind on the Philip Morris offer.

Tenneco looking for records

HOUSTON, May 1

TENNECO, the oil, chemicals and packaging concern expects another record year in both sales and earnings, with quarter-to-quarter comparisons more favourable as the year progresses.

First quarter earnings rose to \$110.14m. from \$105.17m. for the same period last year. The per share figure comes out at \$1.10 for the quarter as average shares in issue rose to 95m. from 91.4m. Revenue rose 11 per cent in the latest period to \$2.04bn.

Agencies.

U.S. Steel optimism
U.S. Steel Corporation chairman Mr. Edgar B. Speer told the annual meeting that current strong market demand will lead to a profitable second quarter and continued improvement in the second half of the year. Agencies report from Minneapolis. In the second quarter last year, U.S. Steel earned a restated 91 cents a share. Before the annual meeting Mr. Speer said that cost increases which we are not able to get in increased productivity were going to have to get through price increases, but it was "difficult to identify what kind of price increase if any, will be required for the balance of this year."

Coca Cola move
Coca Cola chairman Mr. J. Paul Austin says his company is appealing against the recent Federal Trade Commission ruling that some aspects of its U.S. bottler contracts were in violation of the FTC Act. Reuters reports from Wilmington. He told the annual stockholders meeting that the company believes the ruling will ultimately be overturned by the courts.

Shenandoah merger
Union Pacific and Shenandoah Oil say their Boards have agreed in principle to the acquisition by Champlin Petroleum, a wholly-owned subsidiary of Union Pacific, of all assets and business of Shenandoah by Champlin for \$40 for each outstanding share of Shenandoah common stock. AP-DJ reports from New York.

Chrysler engine
Chrysler plans to spend \$300m. to produce a new small-car engine for use in a number of its vehicles in the early 1980s. The programme includes a major modernisation and retooling of an existing Chrysler engine manufacturing plant in Trenton, Michigan. AP-DJ reports from Detroit.

SWISS COMPANIES

Nestle plans U.S. sales growth

BY JOHN WICKS

ZURICH, May 1

A SHARE of 30 per cent of Nestle's group turnover may eventually be accounted for by North American business. It would be difficult to attain this, Nestlé SA managing director Dr. Arthur Furrer told a Press conference of the parent company, but the undertaking saw it as a long-term target.

In 1977, North American sales totalled about \$2bn., equal to 22.2 per cent of overall group turnover at Sw.Fra.20,090m. Activities in the United States, where Nestlé operates under its own name and owns companies including the Libby concern and the Stouffer food and catering company, have now been expanded to take over the Fort Worth pharmaceuticals business Alcon Laboratories at the start of this year.

General international investment policy is aimed at expansion through utilisation of existing capacities at an optimum level. At the same time, the group would diversify itself of non-profitable operations, Furrer said.

With regard to the current year's business, Furrer said 1978 had started well, although it was difficult to compare the situation with last year owing to the inflation of turnover in early

1977 due to the jumps in the coffee price. He expressed concern in respect of coffee this year, saying 1978 would be a difficult year in this sector, and said the further development of the Swiss franc exchange rate would also be a decisive factor.

Caution at Zurich Ins.

THIS YEAR should be a "reasonable" one for Zurich Insurance Company, according to chairman Fritz Gerber, with growth at about the same level as 1977. Last year, gross premium income rose by 15.5 per cent in local currencies, but at only 2.2 per cent in terms of Swiss francs, writes John Wicks.

Mr. Gerber pointed out at a Press conference, however, that competition had become stronger in Switzerland and elsewhere. He forecast a "marche battue" on the North American market, although this might not affect 1978 results correspondingly, there would be a drop in profits next year. The United States is the biggest single market for the Zurich concern, accounting for 27.7 per cent of the parent company's gross premium income last year.

Within the whole Zurich

group, major markets in the non-life sector were Switzerland with 19.3 per cent, West Germany with 18.9 per cent, and the United States with 18.8 per cent of the premium total.

The overall business picture, he said, showed a much more balanced division between types of policy and geographical areas. As an example of this, the importance of car business—formerly responsible for two-thirds of Zurich premiums—was some 6 per cent, over 11.4 per cent in local currencies. Although valuation losses resulting from parity changes totalled Sw.Fra.80m., group net profit jumped by 48.6 per cent, Sw.Fra.214m. as part of cashable up 20.7 per cent to Sw.Fra.40m.

The geographical spread of group business has now reached targets foreseen in the current 10-year plan, said Mr. Dunar. The share of the U.S. already far Sandoz's biggest share in the international market, rose last year to 25.6 per cent of group turnover following the Northern King acquisition. It could rise further in the future in view of a number of investment programmes current in the U.S. chief among them being a dyestuff plant at Allendale, South Carolina.

Problems at Sandoz
THIS YEAR is likely to be a "very difficult" one for Sandoz, the Basle-based chemical group, since no new trend seems likely in the currency sector, writes John Wicks. Speaking at a Press conference of parent company Sandoz AG, chairman Dr. Yves Dünar said that losses in turnover resulting from the unfavourable exchange rate situation had been nearly as high in the first quarter of 1978 alone as the Sw.Fra.236m. (\$122m.) recorded for the whole of the last year.

Group sales showed a drop of 7 per cent in the first quarter

on corresponding 1977 figure. This decline was also due to high Swiss franc, since sales in local currencies rose by 12 per cent.

Last year, group turnover rose by 16.3 per cent. Sw.Fra.1,770m., the sharp increase being partly due to the takeover of the U.S. sector, Northern King. Without the acquisition, the increase would have been some 6 per cent, over 11.4 per cent in local currencies. Although valuation losses resulting from parity changes totalled Sw.Fra.80m., group net profit jumped by 48.6 per cent, Sw.Fra.214m. as part of cashable up 20.7 per cent to Sw.Fra.40m.

The geographical spread of group business has now reached targets foreseen in the current 10-year plan, said Mr. Dunar. The share of the U.S. already far Sandoz's biggest share in the international market, rose last year to 25.6 per cent of group turnover following the Northern King acquisition. It could rise further in the future in view of a number of investment programmes current in the U.S. chief among them being a dyestuff plant at Allendale, South Carolina.

Prices up at VW and Audi
DOMESTIC prices for Volkswagen and Audi vehicles will be raised by an average 3.5 per cent from 1977 levels. Volkswagen gives higher costs since the start of the year as the reason.

The price rise comes little more than one week after a 5.9 per cent wage increase settlement for the company's West German labour force. The rise is higher than in the metalworking industry as a whole fairly reflecting, in the trade union view, the particularly buoyant performance of the company.

Last year's group net profits totalled DM419m. and the company entered 1978 with a bullish order book. Latest figures show that domestic registrations of Volkswagen and Audi models in the first three months of this year totalled 218,643 of which the Golf (normal and diesel models) together alone accounted for more than 50,000.

With the new price increases, a normal Golf in West Germany will cost DM9,965 instead of DM9,626. An Audi-80 will cost DM12,195 instead of DM11,684. Simultaneously prices for certain luxury additions such as air conditioning are being reduced by between 7 and 23 per cent.

Kennecott drama nears climax

BY JOHN WYLES

NEW YORK, May 1

ONE OF the most abrasive and absorbing contests in U.S. corporate history resumes a climax to-morrow when the annual general meeting of Kennecott Copper Corporation will decide whether to hand control of the country's largest copper producer over to a list of directors nominated by Curtis-Wright Corporation.

The Curtis-Wright challenge which began in the middle of March after the New Jersey company had acquired 8.9 per cent of Kennecott stock has ensured that to-morrow will be one of the most important annual general meetings of the year. Upwards of 80 journalists are expected to be in the grand ballroom of New York's Plaza Hotel where television cameras will be concentrating on the two central figures in the drama: Mr. T. Roland Berner, chairman of Curtis-Wright, and Mr. Frank R. Milliken, chairman of Kennecott.

Mr. Berner, a 67-year-old former lawyer, who became chairman of Curtis-Wright in 1969, is a tough, shrewd opportunist who in the past six weeks

has fought a bare-knuckled battle for his claims aimed at winning for his company shareholder support for his directors.

But Mr. Berner was regarded by Kennecott management from the first as a serious opponent because he set about exploiting a vision of shareholder discontent whose existence was well known. In the past 10 years the company's share price has been more than halved and dividends have fallen from around 32 to 60 cents a share. When Kennecott was forced by the anti-trust laws to divest itself of Peabody Coal Company last year, many shareholders felt strongly that a portion of the \$1.2bn. proceeds ought to be distributed.

Instead Kennecott management spent \$567m. on acquiring for the company a wide range of standards in the copper industry. The outcome of to-morrow's vote may be known for some days because shareholders are allowed to change their votes right up to the time of ballot. This means that the proxies held by both sides are currently holding out for a contested right up to the last moment.

But Mr. Berner has assailed Kennecott for paying over the odds for Carborundum, which is debatable, and is offering shareholders the lure of profit by promising that his directors will sell off Carborundum. He underlines his case a little by indicating that he expects to be able to secure close to Kennecott's purchase price for Carborundum and promises that he will raid the residue of the copper company's proceeds from the sale of Peabody to pay out \$40 a share to each shareholder at a total cost of more than \$600m. His formula calls for each stockholder to surrender half his holding in Kennecott.

As a result, Curtis-Wright would receive \$80m. in return for its \$77m. expenditure on Kennecott stock, while retaining his 9.9 per cent stake. The outcome of to-morrow's vote may be known for some days because shareholders are allowed to change their votes right up to the time of ballot. This means that the proxies held by both sides are currently holding out for a contested right up to the last moment.

Mr. Berner, a 67-year-old former lawyer, who became chairman of Curtis-Wright in 1969, is a tough, shrewd opportunist who in the past six weeks

AMERICAN QUARTERLIES

AMER. GEN. INSURANCE		AMERICAN PETROFINA		MCDONALDS	
First Quarter	1978	First Quarter	1977	First Quarter	1977
Revenue	378	Revenue	261m.	Revenue	363m.
Net profit	35m.	Net profit	11m.	Net profit	31m.
Net per share	1.51	Net per share	0.10	Net per share	0.77

PROVIDENT LIFE ASSOCIATION OF LONDON LIMITED

Extracts from the Statement by the Chairman, Mr. R.J.W. Crabbe on the Group Results for 1977

In 1977 we celebrated the Centenary of the Company, and held a series of functions throughout the country to thank our agents and advisers for their support. We are entering our second century with great confidence. We now have an excellent range of life and pension policies, offer a wide network of brokers and agents to whom we are able to give a very good service, and the prospect of an improving economic environment compared with the last five years. Our efforts during the year to increase our with-profits policies have been highly successful, and we continue to regard these as providing the best method of countering inflation and giving policyholders the opportunity to share in the fortunes of the company.

LONG-TERM BUSINESS
The principal objective of our recent new business efforts has been the replacement of a large volume of without-profits whole life business by with-profits policies, largely endowment assurances. As a result new sums assured at 1976 values were below the record 1976 total of £207 million although well ahead of the 1975 total, and new annual premiums of £2.3 million were at the same level as in the previous two years. The success of these efforts to increase our with-profits business is illustrated by the fact that the fourth year's bonus income in 1977 was in respect of with-profits policies compared with 32 per cent, in 1976, and 25 per cent, in 1975.

At the end of the year the long-term funds stood at £83 million and the Investment Reserve at £19.9 million, compared with the 1976 figures of £77.8 million and £18.8 million. This improvement of £9.3 million is due to a healthy cash flow of £4.6 million, and to an increase of some £4.7 million in the market values of our stock exchange securities. The cash flow was aided by a further increase in the gross rate of interest earned on the long-term funds which rose to 7.64 per cent, compared with 7.05 in 1976 and 6.49 in 1975. Our yield has been low for many years because of the considerable volume of house-purchase mortgages issued at low rates of interest guaranteed in policies issued more than 10 years ago. As these mortgages decline, and as new cash flow enables us to take advantage of the higher rates now available, we are rapidly attaining a more satisfactory overall yield on our investments. The cash flow was invested during the year as to 40 per cent, in Government securities and 60 per cent, in equities. The proportion of our fund now invested in equities is 47 per cent, from which we hope to receive higher income and capital appreciation in the future, it is now about 25 per cent, of our total investment.

The annual valuation carried out by the Actuary revealed that the surplus emerging in 1977, including the transfer from Investment Reserve, totalled £2,204,000. The valuation basis used in 1976 has been maintained, except that in order to accommodate new business strains the rates

of interest used for valuing without-profits assurances were raised by 0.25 per cent. After providing for bonuses to policyholders and transfers to shareholders, the surplus carried forward to 1978 was £913,000.

GENERAL INSURANCE BUSINESS
The results of the United Standard Insurance Company Limited were affected by heavy underwriting losses on the Property and Accident account, but the investment performance both as regards income and profits was highly satisfactory. Profits of £300,000 on the sale of investments during the year were transferred from the Investment Reserve to the Profit and Loss account and gave the opportunity to increase the provision for future claims under reinsurance treaty business.

The Property and Accident account had underwriting losses of £496,000 compared with £236,000 in 1976. These derived mainly from the reinsurance treaty business which we ceased to write after 1976, and from adverse experience under household contents business where the increase of theft claims is of particular concern. We are increasing the premium rates substantially, as well as continuing to index the value of the property insured.

The Motor account continued to be generally satisfactory, but an increase in claims incurred by the fact that the fourth year's bonus resulted in a small underwriting loss for the year. The pre-tax profit shown in the Profit and Loss account of the subsidiary after taking into account investment income, profits on the sale of investments during the year and expenses was £17,000 compared with a loss of £167,000 in 1976. The loss after overseas tax was however £21,000 compared with £22,000 in 1976 when there was a large amount of group relief. To cover this and the final writing down of goodwill by £31,000, an additional transfer of £60,000 has been made from Investment Reserve. The balance carried forward by the subsidiary in its Profit and Loss account at the end of the year was £17,000 and after making the transfers referred to above the Investment Reserve stood at £200,000.

SHAREHOLDERS' FUND
The parent company's profit for the year was £454,000 compared with £423,000 for the previous year. This was made up of £365,000 transferred from the long-term fund against £335,000 in 1976, and £89,000 transferred from the shareholdings' funds which was virtually unchanged at £89,000. The combined profits of the group after tax were £433,000 compared with £401,000 in the previous year. After allowing for the recommended dividend, which is at the maximum rate permissible, and making the transfers referred to in the subsidiary company's accounts, the carry-forward in the combined Profit and Loss accounts was £528,000 compared with £440,000 in the previous year. The shareholders' fund of the parent company then stood at £2,524,000 at the end of the year, an improvement of £360,000 during 1977.

The Annual General Meeting will be held on Wednesday, 24th May, 1978, at 12 noon, in the Suffolk Room, Abercorn Rooms, Liverpool Street, London, EC2P 2AN. Copies of the Report and Accounts for 1977 can be obtained from the Secretary.

HONG KONG COMPANIES

International suitor wooing Sun Hung Kai

BY DANIEL NELSON

HONG KONG, May 1

SUN HUNG KAI Securities requested a suspension of trading in its shares to-day after announcing that a "leading international banking and industrial group" is negotiating for a substantial minority participation in the company.

No other details were given except that discussions would be concluded "shortly." But it was understood that the international company concerned is Banque de Paris et des Pays-Bas.

Trading in Sun Hung Kai shares closed at HK\$1.54 on Friday and the deal under discussion reportedly involves the acquisition of a new share issue. For the year ended last December, Sun Hung Kai

Securities achieved a 33 per cent increase in turnover, and a final reduction in net earnings from HK\$42.12m. in 1976 to HK\$41.46m. (\$9m.). Group assets rose 28 per cent to HK\$1,050m. (\$228m.). The total dividend was unchanged at \$4.5.

Chairman Fung King-Kei said at the time the results were announced that the group would be keeping an eye "on possible avenues of expansion."

It has been diversifying its range of financial services, so that it is now virtually a banking operation—when Hong Kong's banking regulations were changed earlier this year there was speculation that the company would apply for a licence.

Of the HK\$105.5m. turnover, interest income accounted for HK\$69.83m. (up from HK\$47.86m.) while brokerage and commission—the company is the Colony's largest stockbroker—fell from HK\$4.26m. to HK\$1.68m.

Container profits rise

ORIENT Overseas Container (Holdings)—part of the C. Y. Tung Group—announced a consolidated net profit for fiscal 1977 of HK\$127.6m. (\$27.7m.) compared with HK\$103.6m. the previous year, writes Daniel Nelson. A final dividend of 20.5¢ will be paid, making a total of 35¢ United States.

Stanger exit hits

C. G. Smith

By Richard Stuart

JOHANNESBURG, May 1. THE COST of extricating itself from its 30 per cent involvement in Stanger Pulp and Paper has severe financial consequences for C. G. Smith and Co. The R23.8m. write-off of goodwill knocked nearly 40 per cent off its net asset value.

C. G. Smith and Co. is the unlisted master company of the Smith Sugar group, which includes two substantial companies quoted on the Johannesburg Stock Exchange: C. G. Smith Investments and C. G. Smith Sugar. All three are linked by circular shareholdings with 40 per cent of the master company's shares being owned by C. G. Smith Sugar.

As the latter is a subsidiary, these shares have no voting rights and control of the overall group effectively rests with Standard Bank Investment Corporation.

The impact on the two quoted companies is not too severe as one has diversified into textiles and the sugar company recently acquired the Illinois Sugar Company from Tate and Lyle.

In the case of C. G. Smith Sugar, the master company's enforced dividend cut will reduce earnings by around 5 per cent and less for the investment company. But the main significance of the Stanger pull-out for the quoted companies is that it seriously weakens the balance-sheet ahead of what could be a testing period for sugar companies world-wide.

Smith pulls out of CAIL bid

BY JAMES FORTH

SYDNEY, May 1

HOWARD SMITH has called off its long-standing 34.87m. joint takeover bid with Cosmoline Rio de Janeiro (CRA) for development of the deposits at about the same time the Federal Government refused to allow CRA to maintain a major presence in the SAIBN-plus Hall Creek coking coal project in Queensland, but approved the joint takeover of CAIL.

Directors of the Australian engineering, shipping, coal and sugar group, who had withdrawn from the joint bid with CRA, the "greatest reluctance" because they believed CRA would have brought many benefits to the operations of CAIL.

The Smith board had formed the opinion, however, that the NSW State government was opposed to a significant CRA shareholding in CAIL.

The saga began nine months ago when CRA and Smith announced a joint bid for CAIL. Smith was a founding shareholder in CAIL and already held 33 per cent of the capital. Local mining and industrial group, Peko-Wissend launched a CRA counter bid which was foiled when Smith lifted its equity to 46 per cent and CRA obtained 46 per cent of almost 18 per cent, through market purchases.

In October, the NSW Government announced plans to transfer CAIL's major assets—coal deposits at Warkworth—to the state-owned power utility, which was to own at least 51 per cent of its venture.

A Federal district court judge in Milwaukee has denied Cutler-Hammer's application for a preliminary injunction prohibiting Tyco Laboratories from purchasing additional shares of Cutler-Hammer common stock, reports AP-DJ from New Hampshire. An application for a preliminary injunction against Koppers also was denied.

approached, the group had to make a submission outlining the proposed advantages. This was handed in several weeks ago, but CRA has since been asked for substantial additional information.

After its withdrawal to-day, Smith picked up just over 1m. shares on the market at the proposed offer price—\$43.90 to lift his holding in CAIL to 80 per cent. Smith does not intend to go beyond this level because CAIL owns 20 per cent of Smith, which it would be forced to sell if it became a subsidiary.

Where a significant reduction in Australian participation was proposed, the guidelines provided that evidence must be produced to outline the offsetting advantages to the State.

A joint cash takeover by CRA-Smith would have meant a local equity in CAIL of more than 80 per cent. Moreover, CRA had foreseen a share-only offer, which would have lifted the local equity in CAIL.

Smith believed the way was clear to proceed with its bid, but the government was

able to force CRA to make a submission outlining the proposed advantages. This was handed in several weeks ago, but CRA has since been asked for substantial additional information.

After its withdrawal to-day, Smith picked up just over 1m. shares on the market at the proposed offer price—\$43.90 to lift his holding in CAIL to 80 per cent. Smith does not intend to go beyond this level because CAIL owns 20 per cent of Smith, which it would be forced to sell if it became a subsidiary.

Where a significant reduction in Australian participation was proposed, the guidelines provided that evidence must be produced to outline the offsetting advantages to the State.

A joint cash takeover by CRA-Smith would have meant a local equity in CAIL of more than 80 per cent. Moreover, CRA had foreseen a share-only offer, which would have lifted the local equity in CAIL.

Smith believed the way was clear to proceed with its bid, but the government was

Bahrain OBU's in the black

By Dolia Thomas

BAHRAIN, May 1

PROFITS WERE made in almost all the banks operating in the Bahraini offshore market during 1977. There were 33 offshore banks in business at the end of last year when total assets stood at \$818.7bn.

The three or four loss-making units either were not open for the full 12 months or had been closed for a period of time according to the Bahrain Monetary Agency.

A review by the BMA of the 33 banks' audited accounts to the period showed that average net interest earnings were three quarters of a percentage point per annum, fees as commission frequently covered operating costs.

Surprisingly, minimum operating budgets were seen to be around \$500,000, about half the figure commonly put forward in past months. Operating costs this year, however, are likely to increase as many banks are expanding.

At the end of March, 1978, offshore assets came to \$1,570m. and a further four OBUs were in business. Of the six others which had been closed but not operational, the Banco de Vizcaya and the new Gulf Riyadh bank are expected to open soon.

CREDIT COMMERCIAL DE FRANCE

The Annual General Meeting of CREDIT COMMERCIAL DE FRANCE was held in Paris on the 26th April 1978 under the Chairmanship of Mr. Jean-Maxime Lévesque to approve the accounts for the financial year to the 31st December 1977.

After amortisations and provisions amounting to FF. 152 million against FF. 135 million in 1976 the net profit of the Bank rose to FF. 77 million against FF. 68 million in 1976, not taking into account the transfer to Special Reserves of a provision of FF. 5 million on which tax had already been paid which had been put aside and which it was no longer considered necessary to maintain. The consolidated net profit of the Group attributable to the shareholders of Crédit Commercial de France amounts to FF. 92 million compared to FF. 79 million in 1976.

The meeting approved the payment of a net dividend of FF. 8 per share plus a tax credit of FF. 4 making a total of FF. 12 against FF. 7.40 plus a tax credit of FF. 3.70 for the previous year.

The General Meeting renewed for another period of six years the mandates as Directors of Jean-Maxime Lévesque, Ambroise Roux and Franz Schmitz.

Finally the General Meeting within the limits fixed by the law of 24th July 1966 authorised the Board to effect for the account of the Bank purchases or sales of its own shares on the French Stock Exchange.

INTERNATIONAL FINANCIAL AND COMPANY NEWS

EUROBONDS

BY MARY CAMPBELL

Unknowns in D-Mark situation

LAST WEEK closed with the D-mark sector somewhat recovered from the sharp shake-out earlier in the week, and with the dollar sector responding much less badly than might have been feared to interest-rate trends in the United States.

Through most of the week, interest was focused on the D-mark sector where prices fell to several points between Monday and Wednesday with the result that new issues opened at discounts of up to 45 points from the prices at which they had been offered. On Thursday, prices recovered significantly but the recovery was attributed more to a technical reaction to the sharpness of the falls in the previous three days than to any fundamental revival of demand.

On Friday the cat was thrown among the pigeons by the news that Canada was launching a substantial DM1.5bn. fixed-rate financing. Admittedly "only" DM600m. worth of this is to be sold on the open market—Deutsche Bank, which is managing the operation, is taking the rest entirely on its own books. But DM600m. is the largest-ever D-mark foreign bond issue and it is hitting the market when it is already down.

This is not to say that the terms are out of line with market conditions: on the contrary, so far as can be seen the issue would have offered a 4½ per cent. coupon if announced a few days earlier. The yield of 4.88 per cent. on a 4½ per cent.

coupon is well in line with current secondary market yields for recently issued top quality bonds. Allowance for the 1½ per cent. selling group discount more than compensates for any shortfall there may be in the nominal yield of the Canadian issue.

There is no doubt that Canada is a very special borrower, and there is no doubt that the yield level is technically correct in relation to market conditions. What is not clear however is the extent to which people want to invest in D-mark denominated paper at all at present. The experience of the dollar sector over the winter months suggested that, however accurately priced and exceptional in quality, large Eurobond issues cannot attract sufficient demand in the face of the expectation that the currency is on the way down.

There are two major unknowns in the present situation. One is the outcome of the Capital Markets Sub-Committee meeting held late on Friday evening. The volume of new issues scheduled for this month at that meeting should become clear later today. If the prediction made by some that the volume will be sharply reduced is borne out, then this could make room for the Canadian issue.

The other is the extent to which the sharp falls in secondary market prices last week resulted from dealers clearing their books in preparation for

the Canadian block-buster. Dealers' reports last week had suggested no more than the usual proportion of professional activity in the D-mark sector. However, some commentators are suggesting that the falls were at least partially due to making room for the Canadian issue and if so one might expect the market to be more receptive to the issue than if the falls were solely a reflection of disenchantment with the D-mark.

The two other tranches of the financing, worth DM900m. in total, are being taken onto Deutsche Bank's own books in the case of the six-year tranche there will be an underlying security of notes. Both the DM500m. six-year tranche and the DM400m. four-year tranche carry nominal interest rates of 5 per cent. However in the case of the six-year tranche, Canada will receive only 50 per cent. of the face value of the loan to give a yield to Deutsche Bank of 5.2 per cent. while in the case of the four-year tranche it will receive 98½ per cent. of the face value for a yield of 5.35 per cent.

It is extremely unusual for borrowers to pay more for short term money than for longer term money and the falling yield curve suggested by these two private

operations excited considerable comment in the market on Friday. No satisfactory explanation was available.

Dealers said on Friday that the 5.2 per cent. yield on the six-year tranche was slightly lower than that available on German government issues of similar maturity but that this was not surprising because external D-mark yields had in general been lower than domestic yields recently. The possibility that Deutsche Bank is to some extent taking in special deposits to fund part of the DM900m. new loans—not a small sum, even for the Deutsche Bank—cannot be ruled out.

Meanwhile the dollar sector remains surprisingly firm in the face of the clear indications that U.S. interest rates are on the way up. Friday was a quiet day on the secondary market, with activity by dealers to cover short positions in advance of the long week-end reportedly lending support to prices. It may be, therefore, that as has happened in the past, the "real" response to interest rate developments late last week will appear only this week.

On the other hand the currency situation is pulling in the opposite direction. The main development in this sector last week concerned the

British issue on the New York market. This became a hot issue almost overnight when it became clear that the final pricing would take full account of the falls in secondary market prices during the offering period. Yields were set at significantly higher levels than had been indicated to the market only two days before the pricing.

A major feature of the issue is the extent to which it confirms the geographical structure of demand for dollar denominated paper at present. The full analysis of where the demand came from will not be available for a few weeks, but preliminary indications suggest that between two-thirds and three-quarters of the shorter term issue was placed outside the U.S. but only about 10 per cent. of the longer issue.

The shorter term tranche was freed from the syndicate restrictions on Friday. (In the U.S. market, in contrast to European practice, members of the underwriting syndicate are allowed to trade the bonds only within a limited price range until the issue is freed by the managers.) It immediately moved to a premium. It yesterday morning in line with the improvement in the New York market, following reports of an exceptionally low new issue calendar this month.

CURRENT INTERNATIONAL BOND ISSUES								
Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead manager	Offer yield	
U.S. DOLLARS								
United Kingdom	200	1985	7	8 1/2	100	Morgan Stanley	8.68	
United Kingdom	150	1992	15	8 1/2	99	Morgan Stanley	9.20	
Credit Com. de France	45	1985	7	8	100	CCF	8.83	
*Int. Com. Bk. of China	20	1983	5	7 1/2	100	Dillon Read	7.38	
Nordic Investment Bk.	25	1982	5	8	100	CSWW	8.75	
CNT (g'teed France)	75	1992	1	9	*	UBS Deutsche Soc. Gen.	*	
Norway	250	1983	5	7 1/2	99 1/2	Deutsche Bank	8.0	
Prov. of Newfoundland Islemer	50 35	1990 1981	12 2	9 1/2 8	100 100	Dillon Read	8.68	
Bank Handlowy	30	1983-88	—	8 1/2	*	BNP	*	
Dev. Fin. Corp. of N.Z.	20	1983	4.5	8	*	Chicorp Int.	*	
Dev. Fin. Corp. of N.Z.	20	1985	1	8	*	Chicorp Int.	*	
*Nordic Invest. Bank	10	1988	10	8 1/2	99 1/2	Daiwa Warburg	8.85	
D-MARKS								
Elf Aquitaine	100	1988	8.97	5 1/2	98 1/2	Deutsche Bank	5.49	
Sankyo Electric	40	1986	8	3 1/2	100	Bay. Vereinsbank	3.79	
Den Norske Industribank (g'teed Norway)	125	1990	8.5	6	99 1/2	WestLB	6.06	
Selsyu	100	1986	8	3 1/2	100	WestLB	3.79	
Eur. Resettlement Fd.	100	1988	8	6	100	BHF Bank	6.125	
Canada	600	1983	5	4 1/2	99 1/2	Deutsche Bank	4.86	
GUILLERS								
*Oest. Kontrollbk. (g'teed Austria)	75	1985	7	6 1/2	99 1/2	Amilo	6.59	
SWISS FRANS								
Arberg Tunnel	40	1992	n.a.	4	100	Swiss Bank Corp.	4.0	
Newag	70	1992	n.a.	4	99.8	Schweiz. Volksbank	4.1	
KUWAIT DINARS								
Finish Export Credit (g'teed Finland)	5	1983	5	7 1/2	*	KIC	*	
UNITS OF ACCOUNT								
City of Copenhagen	30	1992	1	7	100.25	Kreditbank Lux.	6.97	
* Not yet priced † Final terms ** Placement † Floating rate note ‡ Minimum § Convertible								
†† Registered with U.S. Securities and Exchange Commission ¶ Purchase Fund								
Note: Yields are calculated on ASB basis.								

* Not yet priced ** Final terms *** Placement **** Floating rate note ***** Registered with U.S. Securities and Exchange Commission ***** Yields are calculated on AISD basis. ***** Purchase Fund ***** Convertible

BONDMARKET INDEX AND YIELD 1978									
	April 27	April 28	April 29	April 30	May 1	May 2	May 3	May 4	May 5
Medium term	99.74	99.74	99.74	99.74	99.74	99.74	99.74	99.74	99.74
Long term	99.74	99.74	99.74	99.74	99.74	99.74	99.74	99.74	99.74

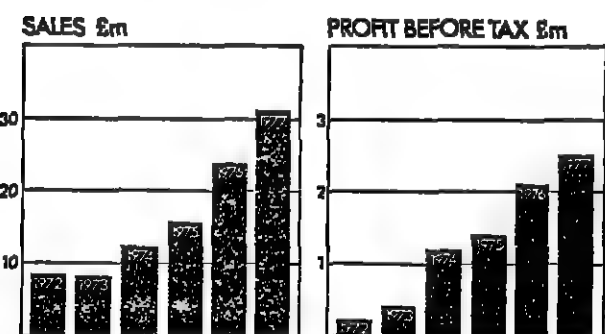
EUROBOND TURNOVER (nominal value in \$m.)									
	last week	previous week	last week	previous week	last week	previous week	last week	previous week	last week
U.S. dollar bonds	1,374	1,097	407.8	358.4	453.3	296.1	312.0	400.1	400.1
Other bonds									



AURORA-RECORD SALES AND PROFITS

Further progress is reported by Mr Robert Atkinson, Chairman of Aurora Holdings Limited, in his report for the year ended 31st December 1977.

- Record results for fifth consecutive year
 - Sales increase 31%
 - Profits increase 19%
- Dividend increase 23%
- Three successful acquisitions during the year
- Ordinary Shareholders' funds up by £3.4m to £8.1m
- Gearing down from 0.97 to 0.69
- Order book shows a significant increase and the Group maintains a strong market position in all its main areas.



Copies of the Report and Accounts are available from The Secretary, Aurora Holdings Limited, Aurora House, 61 Manchester Road, Sheffield S10 5DY.

S. Lyles Limited

Carpet Yarn Spinners and Dyers

INTERIM REPORT

The unaudited results for the half-year ended 31st December, 1977, are as follows:

	Half year to 31.12.77	Half year to 31.12.76	Year to 30.6.77
Turnover:			
United Kingdom	3,069,869	3,208,248	6,922,671
Exports	1,406,766	1,557,111	3,276,811
	£4,476,635	£4,765,359	£10,199,482
Profit before Taxation	107,072	358,247	744,196
Taxation	55,677	186,288	377,050
Net Profit	£ 51,395	£ 171,959	£ 367,146
Earnings per Share	1.42p	4.73p	10.11p

After the slow start to our year, already referred to in the Annual Report, trading conditions improved late in the first six months, and this improvement has been maintained.

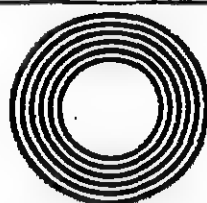
Exports, although marginally down on last year's value, are currently running at a record level.

The results for the second six months will show a notable improvement over those for the first six months.

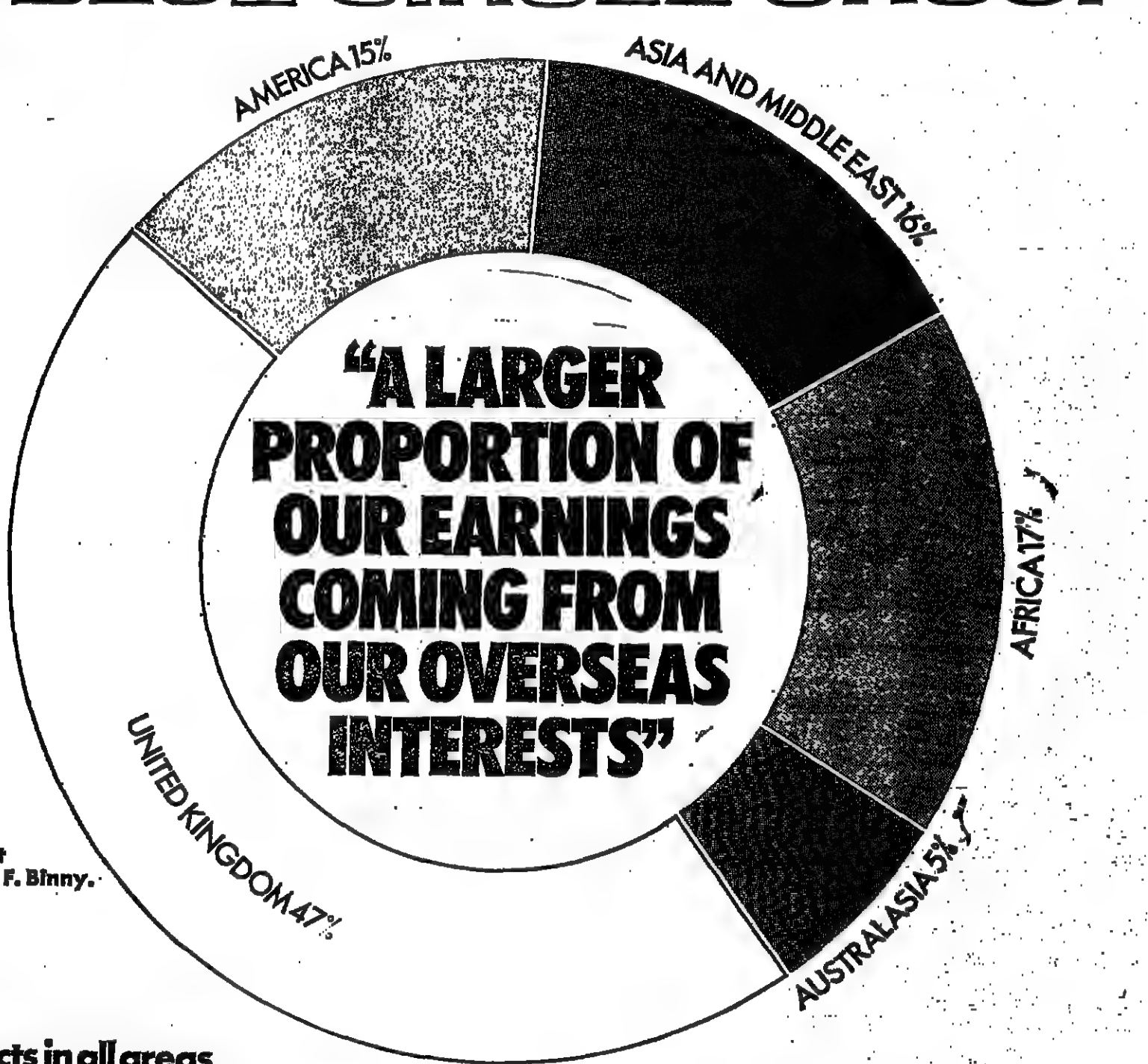
An interim dividend of 2p per share (1977: 2p) amounting to £72,638, net of imputation tax, has been declared for the current year and will be payable on 3rd July, 1978, to shareholders on the register at the close of business on 12th June, 1978.

JOHN LYLES, Chairman

S. Lyles Limited, Jilling Mills, Earlsheaton, Dewsbury WF12 8LX



BLUE CIRCLE GROUP



Points from the Statement by the Chairman Mr. J. A. F. Binny.

Improved Prospects in all areas

This has been a difficult period for the company but we are beginning to see an improvement in prospects. Government measures last year put back £800 millions of public spending into the construction industry, and we believe 1978 will see an increase in cement demand for the first time in four years.

Results for the year

	1977	1976
Turnover	£370.8	£360.0
Profit before Taxation	47.9	45.4
Profit after Taxation	24.7	24.8
Dividends paid and proposed	7.6	6.8
Earnings per £1 Ordinary Stock Unit	27.0p	25.3p

Investment Plans

We have recently replaced a large part of our lorry fleet and are considering replacing some of our older UK plant. We plan to spend £35 million on capital projects in 1978.

Export Growth

This year we have nearly doubled shipments of cement and clinker and we are confident of shipping more in 1978. We are also looking for an increase in export prices. Anticipated further growth overseas will mean a larger proportion of our total earnings is likely to come from our investments and consultancy activities overseas.

Expansion Plans

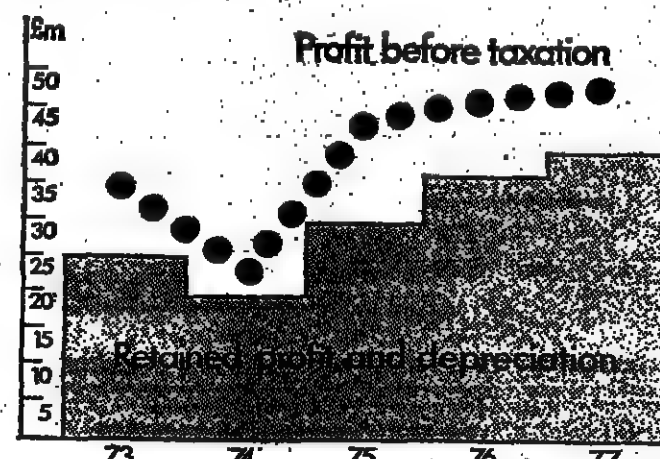
Many companies in which we have an interest are currently expanding their capacity but while governments operate systems of price control it is difficult to achieve a satisfactory return on investment. Nevertheless, our consultancy operation is very successful in opening doors to valuable markets and opportunities overseas.

The Outlook is Good

The future of the company is, I believe, brighter than for some years, provided we are allowed to earn a reasonable return on our investment. The investigation into the company by the Price Commission will find us, I believe, as efficient as any company in Britain, and we trust we will not be prevented from maintaining our prices at the level necessary to ensure our continued prosperity and growth.

Employees' support warmly appreciated

Finally, I should like to refer to the Group reorganisation which took effect at the beginning of 1977. It is gratifying to report after a full year with the new structure that we are beginning to gain the benefits of decentralised operation, lower-level decision making, and increased motivation. Much of this early success is due to the co-operation of our people at all levels and I should like to thank everyone for their loyalty and for the very considerable efforts made during the year to ensure that the company remains at the fore-front of British industry.



I should also like to thank particularly all those people who work for the company in Northern Ireland. Events there during last year have added to the considerable difficulties which they generally experience in conducting business in the Province, and I wish to emphasise how much the Directors appreciate the loyalty and support of employees.

To The Company Secretary, The Associated Portland Cement Manufacturers Ltd, Portland House, Stag Place, London SW1E 5BJ

Please send me a copy of your Report and Accounts with the complete text of the Chairman's Statement.

Name _____
Address _____



The Associated Portland Cement Manufacturers Limited

Portland House, Stag Place, London SW1E 5BJ

معلومات الشركة

FT Monthly Survey of Business Opinion

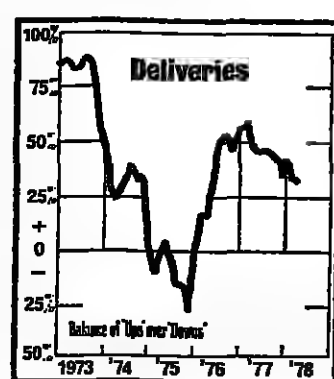
STATISTICAL MATERIAL © TAYLOR NELSON GROUP

GENERAL OUTLOOK

Fall in optimism

IN GENERAL companies said the Budget was much as they expected and a "non-event." It was insufficient to arrest the decline in business confidence from the high level of the autumn. More specifically the engineering and brewers and distillers sectors were both less inclined to say they were "more optimistic" than they were last December.

There was still considerable confidence about export markets. In line with last month, three-quarters of companies believed their exports would be higher in the next 12



months. Paper and connected industries were more likely than before to say that exports would remain the same, but this was offset by a reduction in the number of engineering companies saying they would be lower. However, both these changes were slight.

There has been no improvement in the rate of increase in new deliveries, which was unchanged on last month. A rather more pessimistic outlook among the engineering and paper and connected industries was offset by improved sales by brewers and distillers.

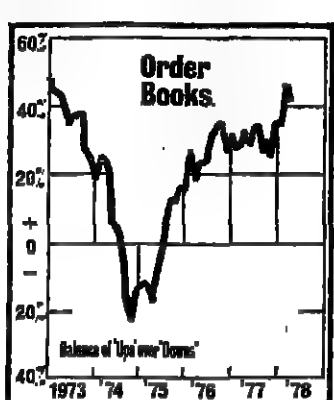
ORDERS AND OUTPUT

Expectations reduced

THE TREND in new orders declined slightly due to a fall in two of the three sectors covered this month, namely engineering and paper and connected industries. The improvement among brewers and distillers was not enough to offset this.

The expectations for total sales in the next year were slightly lower, with the median expected increase in turnover during the latest period at 4.7 per cent, compared with 4.8 per cent in the last survey.

Both the engineering and the brewing and distilling sectors were less inclined to say their order books would grow over



the next four months than previously.

The engineering sector was rather more hopeful of increasing production over the next 12 months than it was last December, but this was more than balanced by a contrary view in the paper and connected industries.

Most companies did not feel that the Budget had given enough of a stimulus to affect their outlook in general. Although some felt it might have a slight impact on home trade orders felt its indecisive nature warranted a reduction of expectations.

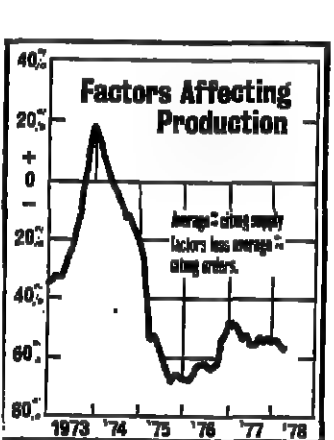
CAPACITY AND STOCKS

Demand still main constraint

THE LEVEL of economic activity continues to be constrained by demand rather than supply factors. The number of respondents who said they were working below planned capacity levels increased to slightly more than a third, and more companies felt their level of stocks was too high.

There has been little change in the number of mentions of different factors affecting production. There was an increase in mentions of manual labour and a significant drop in the number of times labour disputes were brought up as a factor.

The engineering sector was



less inclined to expect stocks to increase over the next twelve months and the paper and connected industries took a similar view for raw materials and components. Although this was offset by the opposite view from brewers and distillers, the overall effect was to push the index for expectations of raw materials and manufactured goods downwards.

On the labour side, there were some complaints from engineering companies over a shortage of skilled labour due to the pay policy and of the difficulty of getting overseas executives to return to the U.K.

CAPACITY WORKING

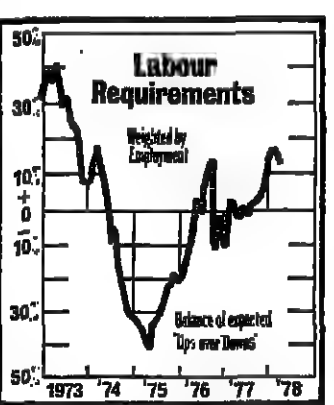
	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Above target capacity	9	10	9	12	8	8	8
Planned output	56	57	60	55	83	55	52
Below target capacity	34	32	31	32	17	37	40
No answer	1	1	—	1	—	—	—

INVESTMENT AND LABOUR

Job prospects dull

THE LIMITED pick-up in economic activity indicated by the survey is reflected in the cautious view of future labour needs taken by industry. The proportion of companies expecting a rise in their labour force has fallen back slightly so that this index has declined. All three sectors interviewed this month were more inclined to mention the potential cost of redundancy payments and the difficulty of recruiting staff with suitable skills as factors affecting the number of employees.

There has been virtually no



change in the indicator of expected capital spending during the next 12 months; a greater degree of confidence by the engineering and the paper and connected sectors was offset by a more pessimistic outlook on the part of brewers and distillers. The Budget had little effect on companies' spending plans. There has been a slight increase in the number of companies saying they will require more outside finance for capital spending during the next 12 months though a third of the sample still do not expect to require any such finance.

COSTS AND PROFIT MARGINS

Inflation rate stable

INDUSTRY believes that there will not be a significant increase in the rate of price inflation during the next 12 months, though no real deterioration either. Companies

median expected rise in wages at 12.7 per cent, while the projected increase in unit costs remained around 11 per cent. Both the engineering and paper and connected industries were less inclined to expect increases in prices of 15 per cent. or over, though this was offset by the price expectations of two major brewing and distilling groups. So the median expected rise remained unchanged at around 10 per cent.

All three sectors were less hopeful of increasing their profit margins during the next year than they had been last December with complaints about heavy competition both at home and overseas.

These surveys, which are carried out for the Financial Times by the Taylor Nelson Group, are based upon extensive interviews with top executives about their companies' situation and prospects.

Three industries and some 30 companies are covered in turn every month. They are drawn from a sample based upon the FT-Actuaries Index, which accounts for about 60 per

cent of the turnover of all public industrial companies. The weighting is by market capitalisation save where an alternative method of weighting is specified. The all-industry figures are

four-monthly moving totals, covering some 120 companies in 11 industrial sectors (mechanical engineering is surveyed every second month).

Complete tables can be purchased from Taylor Nelson and Associates Ltd.

GENERAL BUSINESS SITUATION

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Are you more or less optimistic about your company's prospects than you were four months ago?							
More optimistic	37	38	41	47	7	46	55
Neutral	38	38	39	36	60	54	32
Less optimistic	25	22	18	15	33	—	13
No answer	—	2	2	2	—	—	—

EXPORT PROSPECTS (Weighted by exports)

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Over the next 12 months exports will be:							
Higher	75	77	75	79	69	74	69
Same	13	9	8	10	25	26	30
Lower	9	11	14	11	6	—	—
Don't know	3	3	3	—	—	—	1

NEW ORDERS

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
The trend of new orders in the last 4 months is:							
Up	49	53	48	48	2	63	15
Same	28	29	28	20	34	1	20
Down	11	10	12	11	62	—	12
No answer	12	8	12	21	2	36	53

PRODUCTION/SALES TURNOVER

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Those expecting production/sales turnover in the next 12 months to:							
Rise over 20%	5	6	4	5	—	—	—
Rise 15-19%	4	4	7	9	—	—	—
Rise 10-14%	12	9	11	18	41	10	9
Rise 5-9%	23	25	27	16	33	19	29
About the same	48	48	45	46	7	71	62
Fall 5-9%	3	2	3	3	17	—	—
No comment	5	6	3	3	2	—	—

STOCKS

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Raw materials and components over the next 12 months will:							
Increase	40	45	44	43	3	36	7
Stay about the same	42	40	47	48	45	64	85
Decrease	16	13	8	4	50	—	8
No comments	2	2	1	5	2	—	—
Manufactured goods over the next 12 months will:							
Increase	30	32	35	31	—	25	24
Stay about the same	38	41	42	43	—	75	53
Decrease	10	10	3	2	—	—	—
No comments	22	17	20	24	100	—	23

FACTORS CURRENTLY AFFECTING PRODUCTION

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Home orders	85	86	85	82	100	92	65
Export orders	63	61	60	54	76	89	82
Executive staff	29	30	34	30	59	44	43
Skilled factory staff	43	42	46	39	64	36	75
Manual Labour	17	13	11	7	38	36	16
Components	4	5	7	8	—	—	—
Raw materials	3	5	9	9	2	—	—
Production capacity (plant)	14	15	11	11	—	17	8
Others	9	7	12	7	—	37	—
Labour disputes	30	37	38	36	38	—	59
No answer/no factor	4	5	4	5	—	—	—

LABOUR REQUIREMENTS (Weighted by employment)

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Those expecting their labour force over the next 12 months to:							
Increase	28	30	27	25	—	16	10
Stay about the same	57	56	62	64	91	36	60
Decrease	15	14	11	11	9	48	30
No comment	—	—	—	1	—	—	—

CAPITAL INVESTMENT (Weighted by capital expenditure)

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Those expecting capital expenditures over the next 12 months to:							
Increase in volume	55	53	51	56	44	49	60
Increase in value but not in volume	6	6	12	11	8	1	22
Stay about the same	15	18	17	16	48	1	10
Decrease	24	23	18	14	—	49	8
No comment	—	—	2	3	—	—	—

COSTS

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Wages rise by:							
5-9%	9	10	8	6	—	1	4
10-14%	67	64	74	74	93	98	41
15-19%	13	11	10	11	7	1	52
20-24%	2	2	—	—	—	—	—
No answer	9	13	11	9	—	—	3
Unit cost rise by:							
0-4%	1	1	3	5	—	—	—
5-9%	38	36	24	22	55	18	5
10-14%	49	48	60	60	26	74	75
15-19%	5	7	6	5	17	—	8
20-24%	4	3	—	—	—	—	—
Same	—	—	1	2	—	—	4
Decrease	—	—	1	1	—	—	—
No answer	3	5	5	5	2	8	8

PROFIT MARGINS

	Jan-Apr.	Dec-Mar.	Nov-Feb.	Oct-Jan.	Eng's %	Brewers %	Paper %
Those expecting profit margins over the next 12 months to:							
Improve	23	26	24	22	—	27	13
Remain the same	41	41	43	55	43	36	51
Contract	33	29	29	21	57	37	36
No comment	3	4	4	2	—	—	—

COMPANY NOTICES

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re
UNITED MERCHANTS AND
MANUFACTURERS, INC., et al.
Debtors.

NOTICE TO HOLDERS OF 9% GUARANTEED SINKING FUND DEBENTURES OF UNITED MERCHANTS AND MANUFACTURERS, INC.

PLEASE TAKE NOTICE that the United Merchants and Manufacturers, Inc. ("Company") is a corporation organized under the laws of the State of New York, and that the Company is a debtor in the Chapter 11 reorganization case filed in the United States District Court for the Southern District of New York, on July 12, 1977, and the proceedings are pending in said Court before Honorable Roy Babitt, Bankruptcy Judge, under docket number 77-81613.

PLEASE TAKE FURTHER NOTICE that the Company has filed a Composite Consolidated Plan in said proceedings under date of March 9, 1978, (the "Plan"), which Plan provides, inter alia, that the holders of 9% Guaranteed Sinking Fund Debentures shall constitute Class V and shall be paid 100% of their claims, both principal and interest. The following is a summary of the proposed plan of reorganization of the Company and the payment to Class V creditors shall be made in full settlement, satisfaction, release and discharge of any and all claims against the Debtor:

1. The Company shall cause Overseas Capital to make payments of principal and interest on the 9% Guaranteed Sinking Fund Debentures to the fiscal agent under the Plan, the Fiscal Agency Agreement for distribution to the Class V creditors, pro rata, as follows: (a) on the date of the Plan, the Company shall cause Overseas Capital to make payments to the fiscal agent under the Plan of the sum of (i) the amount of accrued and unpaid interest on the 9% Guaranteed Sinking Fund Debentures due to and including the date of the Plan, and (ii) the amount of the sum of the entry of an order by the Bankruptcy Court confirming the Plan to the extent of the principal amount of the 9% Guaranteed Sinking Fund Debentures; and (b) in further payment of the principal balance due on the 9% Guaranteed Sinking Fund Debentures, the Company shall cause Overseas Capital to pay an amount equal to 100% of the principal amount of the 9% Guaranteed Sinking Fund Debentures outstanding at the close of business on the next day preceding the Commencement Date (the "Principal Balance") as follows:

(i) The Company shall cause Overseas Capital to pay to the fiscal agent under the Plan the sum of the Principal Balance divided by the number of full calendar months from the date of Confirmation to March 1, 1982 (the "Confirmation Date") in the calendar month of March 1978, 1979, 1980, 1981 and 1982. The Company shall cause Overseas Capital to pay to the fiscal agent an amount sufficient to retire at 100% of the principal amount of the 9% Guaranteed Sinking Fund Debentures outstanding at the Confirmation Date, and the number of full calendar months from the date of Confirmation to March 1, 1978, or before each of March 1, 1980, 1981 and 1982, the Company shall cause Overseas Capital to pay to the fiscal agent an amount sufficient to retire each Debenture in the principal amount equal to the Monthly Amount multiplied by twelve.

(ii) Interest on the 9% Guaranteed Sinking Fund Debentures shall accrue and be paid at the rate of 9% per annum from the date of Confirmation to the date of payment of the Principal Balance as follows:

(A) The Company shall cause Overseas Capital to pay to the fiscal agent under the Plan the sum of the Principal Balance divided by the number of full calendar months from the date of Confirmation to March 1, 1982 (the "Confirmation Date") in the calendar month of March 1978, 1979, 1980, 1981 and 1982. The Company shall cause Overseas Capital to pay to the fiscal agent an amount sufficient to retire at 100% of the principal amount of the 9% Guaranteed Sinking Fund Debentures outstanding at the Confirmation Date, and the number of full calendar months from the date of Confirmation to March 1, 1978, or before each of March 1, 1980, 1981 and 1982, the Company shall cause Overseas Capital to pay to the fiscal agent an amount sufficient to retire each Debenture in the principal amount equal to the Monthly Amount multiplied by twelve.

(B) Interest on the Principal Balance as reduced from time to time shall accrue at the rate of 9% per annum from the day following the date of Confirmation and shall be paid on the first day of March of each of 1979, 1980, 1981 and 1982.

2. Article 7(b) of the Fiscal Agency Agreement shall be deemed amended to provide that a successor fiscal agent may be any responsible financial firm or institution, whether or not it has an office in New York City. All other references in the Fiscal Agency Agreement to the fiscal agent shall be deemed to refer to the successor fiscal agent. The successor fiscal agent shall be deemed to be such person as any successor fiscal agent shall determine.

3. With respect to the holders of the 9% Guaranteed Sinking Fund Debentures who accept any payment contemplated by the Plan, the Fiscal Agency Agreement shall be deemed amended to reflect the provisions of the Plan.

PLEASE TAKE FURTHER NOTICE that the Plan further provides that all details relating to the Plan, including the Fiscal Agency Agreement, shall be deemed to have been cured or waived as at the date of Confirmation, and such notice of acceleration, including any outstanding claims of any holders of such debentures to be due and payable shall be cancelled, rescinded and of no further force and effect as to the Debtor.

PLEASE TAKE FURTHER NOTICE that although the Plan does not extinguish the right of an individual holder of 9% Guaranteed Sinking Fund Debentures to demand payment in accordance with the original terms of the Debenture if he chooses not to be paid in accordance with the Plan, Class V creditors who accept the payments to be made upon confirmation of the Plan shall be deemed to have waived their right to demand and accelerate payment of the amounts remaining unpaid on such debentures, and it is a condition to receive payments under the Plan that Class V creditors waive their right to demand and accelerate payment.

PLEASE TAKE FURTHER NOTICE that if, after confirmation of the Plan, any holder of 9% Guaranteed Sinking Fund Debentures declines to surrender such debentures and coupons as above, such holder shall continue to have the right to demand and accelerate payment of the amounts remaining unpaid on such debentures, and it is a condition to receive payments under the Plan that Class V creditors waive their right to demand and accelerate payment.

PLEASE TAKE FURTHER NOTICE that if, after confirmation of the Plan, any holder of 9% Guaranteed Sinking Fund Debentures declines to surrender such debentures and coupons as above, such holder shall continue to have the right to demand and accelerate payment of the amounts remaining unpaid on such debentures, and it is a condition to receive payments under the Plan that Class V creditors waive their right to demand and accelerate payment.

PLEASE TAKE FURTHER NOTICE that the meeting may be continued or adjourned from time to time by order made in open court without further written notice to creditors.

PLEASE TAKE FURTHER NOTICE that there will also be considered before the undersigned Bankruptcy Judge at the United States Courthouse, Foley Square, New York, New York 10007, on May 22, 1978, at 10:00 A.M., or at such other time and place as may be ordered by the Court, a motion by the Company and the other debtors in these proceedings for an order compelling the above-captioned proceedings and the holding of a single proceeding and merging the assets and liabilities of said debtors for the purpose of said proceedings, eliminating all inter-company claims by and among the debtors herein, eliminating all guarantees, securities or any of the claims of the creditors of any of the debtors, directing that all claims filed in the above captioned proceedings shall be deemed to have been filed in the consolidated proceeding and granting the debtors such other and further relief as may be deemed appropriate.

PLEASE TAKE FURTHER NOTICE that any and all inquiries with respect to the Plan, its terms, conditions and provisions, the time and manner of payment and any other matters relating thereto, may be made directly to the undersigned Bankruptcy Judge, or to the Fiscal Agency Agreement for the Company. In addition, the Plan itself is on file with the Clerk of the Bankruptcy Court and may be examined at any time during regular business hours.

Dated: New York, New York
April 17, 1978.

Counsel for the Company:
LEVIN & WEINTRAUB
225 Broadway
New York, New York 10007
(212) 692-3300
STROCK & STROCK & LAVAN
51 Broadway
New York, New York 10008
(212) 425-5200

NOTICE OF MEETING

AB Electrolux

The shareholders in AB Electrolux are hereby advised that the ordinary Annual General Meeting will be held on Wednesday, May 17, 1978, at 10:00 A.M. at the Stockholm Esplanade Bank. The Conference Room, Sargen Tor 2, Stockholm.

AGENDA
1. Report from matters prescribed by law and the Company's Articles of Association. The meeting will consider a proposal for a bonus issue and a proposal to raise a loan for the purpose of the Company's expansion program.

2. The Company's share capital will be increased by SEK 160,700,000 to SEK 354,200,000 by issuing to the shareholders 16,070,000 new shares of SEK 10 each. It is proposed that the new shares, which will be issued in three tranches, be allocated to the shareholders in proportion to their holdings of the Company's shares as of the date of the meeting.

3. The Company's share capital will be increased by SEK 160,700,000 to SEK 354,200,000 by issuing to the shareholders 16,070,000 new shares of SEK 10 each. It is proposed that the new shares, which will be issued in three tranches, be allocated to the shareholders in proportion to their holdings of the Company's shares as of the date of the meeting.

4. The Company's share capital will be increased by SEK 160,700,000 to SEK 354,200,000 by issuing to the shareholders 16,070,000 new shares of SEK 10 each. It is proposed that the new shares, which will be issued in three tranches, be allocated to the shareholders in proportion to their holdings of the Company's shares as of the date of the meeting.

OFFSHORE AND OVERSEAS FUNDS

[illegible][illegible]

FT SHARE INFORMATION SERVICE

****BRITISH FUNDS**

Interval	Stock	Price & Last	Yield
"Shorts" (Lives up to Five Years)			
100A1	140 Treasury Note 7 7/8% 1980	100 1/8	8 1/2
100A2	120 Treasury Note 7 7/8% 1980	99 3/4	8 1/2
100A3	90 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A4	60 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A5	30 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A6	10 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A7	5 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A8	2 1/2 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A9	1 1/4 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A10	5/8 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A11	25 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A12	12 1/2 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A13	6 1/4 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A14	3 1/2 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A15	1 3/4 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A16	7/8 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A17	3/4 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A18	1/2 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A19	1/4 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A20	1/8 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A21	1/16 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A22	1/32 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A23	1/64 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A24	1/128 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A25	1/256 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A26	1/512 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A27	1/1024 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A28	1/2048 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A29	1/4096 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A30	1/8192 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A31	1/16384 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A32	1/32768 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A33	1/65536 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A34	1/131072 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A35	1/262144 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A36	1/524288 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A37	1/1048576 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A38	1/2097152 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A39	1/4194304 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A40	1/8388608 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A41	1/16777216 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A42	1/33554432 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A43	1/67108864 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A44	1/134217728 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A45	1/268435456 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A46	1/536870912 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A47	1/1073741824 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A48	1/2147483648 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A49	1/4294967296 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A50	1/8589934592 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A51	1/17179869184 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A52	1/34359738368 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A53	1/68719476736 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A54	1/137438953472 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A55	1/274877906944 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A56	1/549755813888 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A57	1/1099511627776 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A58	1/2199023255552 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A59	1/4398046511104 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A60	1/8796093022208 Treasury Note 7 7/8% 1980	99 1/2	8 1/2
100A61	1/1759218604441		

18U/Treasury 54pc 73	964	12212	9.83	14.74
15A/Funding 54pc 75-9442	936	9126	6.64	9.79
10U/Treasury 54pc 79-9282	92	579	9.51	14.31
11U/Funding 54pc 75-9274	794	81	8.26	10.04
25U/Treasury 74pc 75-9582	834	2112	9.48	14.31
15U/Treasury 54pc 75-9274	936	9126	6.64	9.79
15U/Treasury 54pc 75-92	657	93	7.62	10.13
15U/Treasury 54pc 100042	1677	1212	12.49	12.43
15U/Treasury 84 70022	821	1110	10.38	11.31
10U/Treasury 714pc 1001	99	512	12.32	12.47
50U/Funding 54pc 77-0142	655	1	8.89	16.94
15U/Treasury 54pc 75-9274	936	9126	6.64	9.79
21A/Treasury 10pc 1002	87	1111	7.75	12.26
21A/Rech. 25pc 92	994	1612	15.52	12.46

14A	Frequency 1500 Hz	620	13,122.68	13.63
14B	Pending 1500 Hz	520	13,141.972	13.63
15A	Frequency 1500 Hz	520	13,141.972	13.63
15B	Pending 1500 Hz	520	13,141.972	13.63
16A	Frequency 1500 Hz	1135	23,113.76	12.94
22A	Exch. 1500 Hz	1135	23,113.76	12.94
22B	Pending 1500 Hz	1135	23,113.76	12.94
23A	Frequency 1500 Hz	995	12,122.99	12.67
23B	Pending 1500 Hz	995	12,122.99	12.67
24A	Exch. 1500 Hz	995	12,122.99	12.67
24B	Pending 1500 Hz	995	12,122.99	12.67
25A	Frequency 1500 Hz	995	12,122.99	12.67
25B	Pending 1500 Hz	995	12,122.99	12.67
26A	Frequency 1500 Hz	1135	23,113.76	12.94
26B	Pending 1500 Hz	1135	23,113.76	12.94
27A	Frequency 1500 Hz	1135	23,113.76	12.94
27B	Pending 1500 Hz	1135	23,113.76	12.94
28A	Frequency 1500 Hz	1135	23,113.76	12.94
28B	Pending 1500 Hz	1135	23,113.76	12.94
29A	Frequency 1500 Hz	1135	23,113.76	12.94
29B	Pending 1500 Hz	1135	23,113.76	12.94
30A	Frequency 1500 Hz	1135	23,113.76	12.94
30B	Pending 1500 Hz	1135	23,113.76	12.94
31A	Frequency 1500 Hz	1135	23,113.76	12.94
31B	Pending 1500 Hz	1135	23,113.76	12.94
32A	Frequency 1500 Hz	1135	23,113.76	12.94
32B	Pending 1500 Hz	1135	23,113.76	12.94
33A	Frequency 1500 Hz	1135	23,113.76	12.94
33B	Pending 1500 Hz	1135	23,113.76	12.94
34A	Frequency 1500 Hz	1135	23,113.76	12.94
34B	Pending 1500 Hz	1135	23,113.76	12.94
35A	Frequency 1500 Hz	1135	23,113.76	12.94
35B	Pending 1500 Hz	1135	23,113.76	12.94
36A	Frequency 1500 Hz	1135	23,113.76	12.94
36B	Pending 1500 Hz	1135	23,113.76	12.94
37A	Frequency 1500 Hz	1135	23,113.76	12.94
37B	Pending 1500 Hz	1135	23,113.76	12.94
38A	Frequency 1500 Hz	1135	23,113.76	12.94
38B	Pending 1500 Hz	1135	23,113.76	12.94
39A	Frequency 1500 Hz	1135	23,113.76	12.94
39B	Pending 1500 Hz	1135	23,113.76	12.94
40A	Frequency 1500 Hz	1135	23,113.76	12.94
40B	Pending 1500 Hz	1135	23,113.76	12.94
41A	Frequency 1500 Hz	1135	23,113.76	12.94
41B	Pending 1500 Hz	1135	23,113.76	12.94
42A	Frequency 1500 Hz	1135	23,113.76	12.94
42B	Pending 1500 Hz	1135	23,113.76	12.94
43A	Frequency 1500 Hz	1135	23,113.76	12.94
43B	Pending 1500 Hz	1135	23,113.76	12.94
44A	Frequency 1500 Hz	1135	23,113.76	12.94
44B	Pending 1500 Hz	1135	23,113.76	12.94
45A	Frequency 1500 Hz	1135	23,113.76	12.94
45B	Pending 1500 Hz	1135	23,113.76	12.94
46A	Frequency 1500 Hz	1135	23,113.76	12.94
46B	Pending 1500 Hz	1135	23,113.76	12.94
47A	Frequency 1500 Hz	1135	23,113.76	12.94
47B	Pending 1500 Hz	1135	23,113.76	12.94
48A	Frequency 1500 Hz	1135	23,113.76	12.94
48B	Pending 1500 Hz	1135	23,113.76	12.94
49A	Frequency 1500 Hz	1135	23,113.76	12.94
49B	Pending 1500 Hz	1135	23,113.76	12.94
50A	Frequency 1500 Hz	1135	23,113.76	12.94
50B	Pending 1500 Hz	1135	23,113.76	12.94
51A	Frequency 1500 Hz	1135	23,113.76	12.94
51B	Pending 1500 Hz	1135	23,113.76	12.94
52A	Frequency 1500 Hz	1135	23,113.76	12.94
52B	Pending 1500 Hz	1135	23,113.76	12.94
53A	Frequency 1500 Hz	1135	23,113.76	12.94
53B	Pending 1500 Hz	1135	23,113.76	12.94
54A	Frequency 1500			

1A	Consols 4pc	33 1/2	20.12.12.35	—
1D	War Loan 3pc	32 1/2	25.4.10.63	—
10	Conv. 3pc 10 Aft.	35 1/2	23.2.10.05	—
50	Treasury 3pc 60 Aft.	34 1/2	1.3.12.42	—
A.J.	Consols 2pc	21	18.12.61	—
10	Treasury 3pc	20 1/2	23.2.12.46	—

15A. Spec Stock 77-82	83	6.1	6.82	9.94
-----------------------	----	-----	------	------

[illegible]

10	*And. Spg. 75-78	984	28.2	5.59	9.24
11	*Do Spg. 77-80	937	30.11	5.94	10.41
12	*Do Spg. 81-82	893	28.2	6.62	10.87
13	*V 2 4pc 1978-79	893	21.11	4.12	8.95
21A	*Do Spg. 76-80	94	30.1	6.45	10.20
15D	*Do Spg. 83-85	851	15.11	9.16	10.92
1N	*Sth. Africa Spg. 79-81	939	28.3	10.14	11.72
14	*Nth. Rhod. Spg. 66-70	99	3.66	—	—
15J	*Do Dec. 78-81	90	12.65	—	—

Public Board and Ind.

312	Arrested by police	85%	14.11	12.99	13.40
15	Met. Wtr. Apr 1982	29%	12	18.41	12.09
312	U.S.M.C. Apr 1982	130	14.11	7.14	2.50
312	De. without Warrants	95	11.12	9.89	11.79

[illegible]

Plant	Stock	Price	Last	Net	Yield
			5/15	5/15	
13	Antwerp 100	27	27	—	—
14	Do 100	23	23 1/2	B	—
15	Do 100	28	28	—	13.99
16	Do 100	41	41	—	—
17	Do 100	42	42 1/2	2 1/2	16.70
18	Do 100	43	43	—	16.12
19	Do 100	44	44	4	14.71
20	Do 100	45	45	4	14.71
21	Do 100	46	46	—	14.71
22	Do 100	47	47 1/2	1/2	12.65
23	Do 100	48	48 1/2	1/2	12.65
24	Do 100	49	49 1/2	1/2	12.65
25	Do 100	50	50 1/2	1/2	12.65
26	Do 100	51	51 1/2	1/2	12.65
27	Do 100	52	52 1/2	1/2	12.65
28	Do 100	53	53 1/2	1/2	12.65
29	Do 100	54	54 1/2	1/2	12.65
30	Do 100	55	55 1/2	1/2	12.65
31	Do 100	56	56 1/2	1/2	12.65
32	Do 100	57	57 1/2	1/2	12.65
33	Do 100	58	58 1/2	1/2	12.65
34	Do 100	59	59 1/2	1/2	12.65
35	Do 100	60	60 1/2	1/2	12.65
36	Do 100	61	61 1/2	1/2	12.65
37	Do 100	62	62 1/2	1/2	12.65
38	Do 100	63	63 1/2	1/2	12.65
39	Do 100	64	64 1/2	1/2	12.65
40	Do 100	65	65 1/2	1/2	12.65
41	Do 100	66	66 1/2	1/2	12.65
42	Do 100	67	67 1/2	1/2	12.65
43	Do 100	68	68 1/2	1/2	12.65
44	Do 100	69	69 1/2	1/2	12.65
45	Do 100	70	70 1/2	1/2	12.65
46	Do 100	71	71 1/2	1/2	12.65
47	Do 100	72	72 1/2	1/2	12.65
48	Do 100	73	73 1/2	1/2	12.65
49	Do 100	74	74 1/2	1/2	12.65
50	Do 100	75	75 1/2	1/2	12.65
51	Do 100	76	76 1/2	1/2	12.65
52	Do 100	77	77 1/2	1/2	12.65
53	Do 100	78	78 1/2	1/2	12.65
54	Do 100	79	79 1/2	1/2	12.65
55	Do 100	80	80 1/2	1/2	12.65
56	Do 100	81	81 1/2	1/2	12.65
57	Do 100	82	82 1/2	1/2	12.65
58	Do 100	83	83 1/2	1/2	12.65
59	Do 100	84	84 1/2	1/2	12.65
60	Do 100	85	85 1/2	1/2	12.65
61	Do 100	86	86 1/2	1/2	12.65
62	Do 100	87	87 1/2	1/2	12.65
63	Do 100	88	88 1/2	1/2	12.65
64	Do 100	89	89 1/2	1/2	12.65
65	Do 100	90	90 1/2	1/2	12.65
66	Do 100	91	91 1/2	1/2	12.65
67	Do 100	92	92 1/2	1/2	12.65
68	Do 100	93	93 1/2	1/2	12.65
69	Do 100	94	94 1/2	1/2	12.65
70	Do 100	95	95 1/2	1/2	12.65
71	Do 100	96	96 1/2	1/2	12.65
72	Do 100	97	97 1/2	1/2	12.65
73	Do 100	98	98 1/2	1/2	12.65
74	Do 100	99	99 1/2	1/2	12.65
75	Do 100	100	100	—	—

[illegible][illegible][illegible][illegible]

Year	Month	Day	Time	Lat.	Long.	Alt.	Wind	Temp.	Hum.	Press.	Clouds	Remarks
1917	Jan	1	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	2	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	3	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	4	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	5	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	6	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	7	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	8	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	9	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	10	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	11	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	12	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	13	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	14	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	15	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	16	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	17	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	18	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	19	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	20	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	21	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	22	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	23	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	24	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	25	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	26	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	27	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	28	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	29	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	30	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear
1917	Jan	31	0600	43° 15'	122° 15'	100	0	32	85	30.0	0	Clear

[illegible][illegible][illegible]

JAN.		FEB.		MAR.		APR.		MAY.		JUN.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.	
Jan.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Feb.	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Mar.	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	
Apr.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
May.	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Jun.	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	
Jul.	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Aug.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Sep.	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	
Oct.	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	
Nov.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
Dec.	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	

June	Dec.	Oct. Western...	92nd	77.8	5.87	2.2	5.8
June	Dec.	Oct. Allied Industries	91st	78.1	5.87	2.2	5.8
January	Aug.	Jan. Publicity	90th	78.1	5.87	2.2	5.8
July	July	July	89th	78.1	5.87	2.2	5.8
July	July	July	88th	78.1	5.87	2.2	5.8
July	July	July	87th	78.1	5.87	2.2	5.8
July	July	July	86th	78.1	5.87	2.2	5.8
July	July	July	85th	78.1	5.87	2.2	5.8
July	July	July	84th	78.1	5.87	2.2	5.8
July	July	July	83th	78.1	5.87	2.2	5.8
July	July	July	82th	78.1	5.87	2.2	5.8
July	July	July	81th	78.1	5.87	2.2	5.8
July	July	July	80th	78.1	5.87	2.2	5.8
July	July	July	79th	78.1	5.87	2.2	5.8
July	July	July	78th	78.1	5.87	2.2	5.8
July	July	July	77th	78.1	5.87	2.2	5.8
July	July	July	76th	78.1	5.87	2.2	5.8
July	July	July	75th	78.1	5.87	2.2	5.8
July	July	July	74th	78.1	5.87	2.2	5.8
July	July	July	73th	78.1	5.87	2.2	5.8
July	July	July	72th	78.1	5.87	2.2	5.8
July	July	July	71th	78.1	5.87	2.2	5.8
July	July	July	70th	78.1	5.87	2.2	5.8
July	July	July	69th	78.1	5.87	2.2	5.8
July	July	July	68th	78.1	5.87	2.2	5.8
July	July	July	67th	78.1	5.87	2.2	5.8
July	July	July	66th	78.1	5.87	2.2	5.8
July	July	July	65th	78.1	5.87	2.2	5.8
July	July	July	64th	78.1	5.87	2.2	5.8
July	July	July	63th	78.1	5.87	2.2	5.8
July	July	July	62th	78.1	5.87	2.2	5.8
July	July	July	61th	78.1	5.87	2.2	5.8
July	July	July	60th	78.1	5.87	2.2	5.8
July	July	July	59th	78.1	5.87	2.2	5.8
July	July	July	58th	78.1	5.87	2.2	5.8
July	July	July	57th	78.1	5.87	2.2	5.8
July	July	July	56th	78.1	5.87	2.2	5.8
July	July	July	55th	78.1	5.87	2.2	5.8
July	July	July	54th	78.1	5.87	2.2	5.8
July	July	July	53th	78.1	5.87	2.2	5.8
July	July	July	52th	78.1	5.87	2.2	5.8
July	July	July	51th	78.1	5.87	2.2	5.8
July	July	July	50th	78.1	5.87	2.2	5.8
July	July	July	49th	78.1	5.87	2.2	5.8
July	July	July	48th	78.1	5.87	2.2	5.8
July	July	July	47th	78.1	5.87	2.2	5.8
July	July	July	46th	78.1	5.87	2.2	5.8
July	July	July	45th	78.1	5.87	2.2	5.8
July	July	July	44th	78.1	5.87	2.2	5.8
July	July	July	43th	78.1	5.87	2.2	5.8
July	July	July	42th	78.1	5.87	2.2	5.8
July	July	July	41th	78.1	5.87	2.2	5.8
July	July	July	40th	78.1	5.87	2.2	5.8
July	July	July	39th	78.1	5.87	2.2	5.8
July	July	July	38th	78.1	5.87	2.2	5.8
July	July	July	37th	78.1	5.87	2.2	5.8
July	July	July	36th	78.1	5.87	2.2	5.8
July	July	July	35th	78.1	5.87	2.2	5.8
July	July	July	34th	78.1	5.87	2.2	5.8
July	July	July	33th	78.1	5.87	2.2	5.8
July	July	July	32th	78.1	5.87	2.2	5.8
July	July	July	31th	78.1	5.87	2.2	

[illegible]

MACHINE TOOLS									
Oct.	Appl. JACE Machinery	110	13.2	3.36	2.9	4.7	1.1	1.1	1.1
Apr.	Turner P.V. Serv.	170	17.4	5.71	1.7	4.7	1.1	1.1	1.1
Apr.	Appl. JACE Machinery	110	13.2	3.36	2.9	4.7	1.1	1.1	1.1
Apr.	Sept. Do. 'A'	79	13.2	2.26	3.8	4.9	1.1	1.1	1.1
May	Non-Adm. Group	2400	11.4	110.0	3.3	6.3	7.7	1.1	1.1
June	Dec. Allen W.G.	1747	14.0	54.4	2.5	6.3	7.7	1.1	1.1
June	Feb. Allen W.G. Baltimore	1747	14.0	54.4	2.5	6.3	7.7	1.1	1.1
June	Apr. Allen W.G.	1747	14.0	54.4	2.5	6.3	7.7	1.1	1.1
June	July Adm. Power	130	11.8	5.26	3.5	9.5	1.1	1.1	1.1
Feb.	Jan. Adm. Selye	51	3.1	2.57	1.9	7.4	1.1	1.1	1.1
Oct.	May Adm. Selye	34	3.4	1.63	1.9	7.4	1.1	1.1	1.1
Oct.	May Adm. Selye	1160	11.4	66.3	2.4	8.7	7.7	1.1	1.1
	Am. Latins 12-5	3-2	3.4	0.63	1.9	7.4	1.1	1.1	1.1

Mar	Allied Brews.	87	16.1	3.93	1.9	6.2	11.9
Sept	Anal Dist Pr Np	37	30.1	m0.25	—	1.0	—
July	Bacon Char glon	159	12.12	4.84	3.2	4.6	18.1
June	Bell Archer 50c	245m	17.4	14.78	3.5	3.0	14.8

May	Nov.	Anglia TV 4 p.m.	11	27.4	4.18	31	8.8	5.9
June	Nov.	Ang. Tele. 4 p.m.	19	30.1	4.22	31	8.8	5.9
Nov.	Apr.	Green Gable 4 p.m.	65	30.1	4.22	25	4.5	4.3
Nov.	Apr.	World Wld 4 p.m.	31	7.9	10.39	25	4.5	4.3
Oct.	Oct.	Brit. NV	122	1.2	1.2	25	8.5	7.2
May	Apr.	Oct. 1872	122	1.2	1.2	25	8.5	7.2
Jan.	Jan.	Dr. David 12 p.m.	72	3.1	6.04	19	12.5	12.5
Jan.	Jan.	Dr. David 12 p.m.	72	3.1	6.04	19	12.5	12.5
Dec.	Dec.	Dr. David 12 p.m.	101	13.2	2.08	24	11.0	8.4
Jan.	Jan.	Dr. David 12 p.m.	56	14.1	3.33	24	11.0	8.4
June	June	Weston TV 4 p.m.	25	28.1	1.23	17	10.3	8.6

Mar.	Aug.	Allied Retail Iop.	230	71.2	317.2	2.9	5.2	10.2
Apr.	Oct.	Amber Day Iop.	35	13.3	172.5	3.0	3.0	4.5
May	June	Amber Day Iop.	37	14.1	153	3.0	3.0	4.5
June	Jan.	Do. A. P. Iop.	36	14.1	153	3.0	3.0	4.5
Aug.	Jan.	Amber Day Iop.	33	28.4	33.3	1.2	0.2	0.2
Aug.	Feb.	Bayer's Sex. Iop.	23	16.3	33.3	0.7	1.1	0.1
Aug.	Sept.	Beattie (P. A.)	106	23.3	33.3	4.2	3.3	11.9
May	Sept.	Bentalls Iop.	34ml	17.4	1.0	0.2	0.2	0.2
		Bism. A. P. Iop.	16ml	17.4	1.0	0.2	0.2	0.2

		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
AND ROADS									
Nov. Aberdeen Const.	83	3.18	14.18	3.6	7.6	5.5			
July Aberdeen Cem.	104	14.11	6.76	•	7.3	•			

HOTELS AND RESTAURANTS		HOTELS AND RESTAURANTS	
September	Adda Int. Hly.	34	17.25
	Borcel (J) Fr. Hly.	226.2	7.75
Dec.	July Grand Walker 59.	51	14.11
Dec.	June City Hotels 20.	51	14.11
Dec.	June De Vero Hotels	199	14.11

هكذا مات الأهل

Battle for \$275m. Japanese uranium contract

BY DOUGLAS RAMSEY

TOKYO, May 1. TWO EUROPEAN groups are vying for a \$275m (£185m.) contract to supply Japan's nuclear power industry with a safety net of enriched uranium between now and 1983. Japanese officials anticipate heavy pressure from European Governments on behalf of their respective uranium enrichment companies. "We expect to sign a contract this year, but all the utilities hope it will not be mingled with European attempts to force a reduction in Japan's trade surplus with the EEC," said the Ministry for International Trade and Industry.

URENCO, a British-Dutch-German consortium based on centrifuge technology, and EURODIF, a French-led consortium using diffusion technology, are competing for the contract to supply enrichment services. URENCO has made a formal offer to supply Japanese utilities with the services together with a third or more of the natural uranium required to be enriched. Negotiations with EURODIF are progressing on what an official called a similar offer. The supply of natural uranium in an enrichment contract would be a major departure from past practice whereby Japanese utilities have had to secure uranium on the world market independently from enrichment contracts.

Although Japan's enriched-uranium needs are secured to 1980, the Ministry for International Trade and Industry and Nuclear Utilities wants to build up a stockpile of enriched uranium.

Under discussion is a plan to build up stocks to the equivalent of a year's consumption. Officials estimate at 3,000 tonnes of separate work—one tonne equals 1,000 separate work units—the yearly refuelling needs of the industry by the target date of 1983.

At present enrichment prices of about \$50 a unit, the value of the enrichment contract alone would be about \$240m. The remainder would go to pay for uranium supplies agreed in the contract.

First approach

Thus, the stockpile contract would come on top of existing supply contracts signed by Japanese utilities. Among these contracts, all but roughly a third of supplies in the 1980s will come from the United States. The French-led consortium agreed in 1973 to deliver 1,000 tonnes of units a year between 1981 and 1980, thus making up for the gap between U.S. supplies and Japanese needs.

Since the precedent of buying European uranium has been set, each European consortium appears convinced that it can win the stockpile contract from the Americans. According to reliable sources, URENCO first approached the Japanese utilities in mid-1977, and in April the joint British-Dutch-German developers of a centrifuge enrichment process made a final offer to the Japanese side. EURODIF threw its hat into the ring earlier this year.

Japanese sources are reluctant to divulge the contents of each offer, but they say that both consortia have offered to supply part of the uranium needed for enrichment.

Until now, Japanese utilities have had to conclude purchase, exploitation and development contracts for uranium independently, and they seem keen to ensure a substantial portion of their needs under the cover of enrichment contracts.

Defence chief's China speech angers Left

BY OUR FOREIGN STAFF

A STORM of protest from Labour Left-wingers, and astonishment in Whitehall, were the immediate reactions yesterday to the reported statement by Marshall of the RAF Sir Neil Cameron, Chief of Defence Staff, that Britain and China had a common enemy, the Soviet Union.

Sir Neil, who is on a goodwill visit to China, made his remarks to officers of China's Sixth Tank Division in Peking.

Dr. David Owen, the Foreign Secretary, said he did not think Sir Neil's remarks would isolate the Soviet Union; there was no suggestion that the Air Marshal's visit was at the expense of good relations with Russia.

"You need to put Air Marshal Cameron's visit in the context of a deliberate attempt to improve relations with China, but, as I said in the House, not deliberately and provocatively at the expense of our relationship with the Soviet Union."

Speaking in Birmingham on Monday, he said the whole purpose of NATO defence strategy was to deter any hostilities in Western Europe by the Soviet Union and Warsaw Pact

countries. Asked if Sir Neil could have chosen his words more carefully, Dr. Owen said: "I have not seen his exact words and I think that is an issue for the Secretary of Defence."

"The Air Marshal must be responsible for what he says. He is a senior and respected figure."

"He went there to discuss aspects of defence co-operation, and I am sure that is what he intends to do."

Whitehall was making urgent efforts last night to clarify what Sir Neil had said. Officials were taken aback by his remarks, which may have foreign policy implications he had not intended.

Invitation His trip, at the invitation of the Chinese, was not aimed at promoting specific new co-operation agreements, nor is he there as a salesman, it was stressed in London. The trip was intended as a goodwill gesture in the context of Peking's broader efforts to improve contact with the West.

Mr. Norman Atkinson, the Labour Party treasurer, has called for Sir Neil's resignation.

F.T. BUSINESS OPINION SURVEY

Industrial optimism continues to fade

Financial Times Reporter

INDUSTRIAL optimism has continued to fade, according to the latest Financial Times survey of Business Opinion published this morning. There is still no evidence that companies believe a significant recovery in the U.K. economy is now occurring or is likely in the next few months.

The Budget had done little to alter attitudes. The general feeling was that it might cause additional inflation, but that the possibility of a further Budget in the summer increased inflationary fears.

More than half the companies were interviewed in the remainder of the week after the Budget. The others, interviewed either on Budget day itself or the preceding Monday, were nearly all contacted after the Chancellor's speech to see if their views had changed as a result.

The replies on the more specific points show that demand rather than supply remains the main constraint on the level of economic activity.

Both order books and order expectations fell slightly. On the brighter side there was still considerable confidence over exports. The three sectors interviewed this month—engineering, brewers and distillers, and paper and related industries—all less hopeful of increasing their profit margins than they had been last December.

Details and tables, Page 36

Scanlon call for work sharing

By Our Labour Editor

UNEMPLOYMENT, not wage inflation, was the main enemy now, Mr. Hugh Scanlon said yesterday in his last presidential speech to engineering section delegates of the Amalgamated Union of Engineering Workers.

Taking as his theme the need for workers to help the unemployed, and attacking Government objections to a cut in the 40-hour week, Mr. Scanlon gave a warning that school-leavers would seek extreme political solutions—whether of the Right or the Left.

"The virtues of exchange the desk for the dole queue and, unless something is done quickly and decisively, today's youth will not tolerate the privations of my generation."

Job creation schemes could be only palliatives, "I know that in saying these things I must accept my share of responsibility in not fighting more vigorously for these things during my term of office as president."

But, faced with the excessive number of claims on wages, conditions and hours we have, of necessity, had to concentrate on wages because of the then high cost of living."

Although involved in discussions which have just begun between the TUC and Ministers on the economy, Mr. Scanlon purposely omitted any reference to the next phase of incomes policy. He believes that will be a job for his successor, whose name will be announced today. The contenders are Mr. Bob Wright for the Left and Mr. Terry Duffy for the Right.

He said that special pay deals for public servants such as police, firemen and soldiers could be afforded only by a country which was economically strong. That, in turn, meant paying workers, especially skilled workers, in manufacturing industry the proper rate for the job.

Of the 10 per cent. limit, he said that it would have been more straightforward for employers and unions alike to say honestly and in advance whether or not they were going to acquiesce to the guidelines.

Some observers see this as a diversionary tactic to draw attention away from the proposed substitution account. The U.S. emphasized that it thought that the time was not ripe for a major distribution of Special Drawing Rights, but was keen to promote greater use of the assets.

THE LEX COLUMN

Equities and the MLR debate

This week the Government will again be grappling with the pros and cons of a rise in the Minimum Lending Rate, in a situation in which the firmness of rate in New York will be giving greater conviction to the hawks. Each week that passes since the Budget makes it easier for the authorities to blame a rise on new developments rather than to accept that the decision to set a figure of 7½ per cent. was a miscalculation.

The debate is being conducted against the background of substantial recent pressure on sterling, with to-morrow's official reserve statistics likely to show a drop of the order of \$30m. during April. Of that, approaching \$20m. will probably represent support for sterling since the trade-weighted index dropped below about 65 just before the end of March (it is now 61.4).

Sterling M3

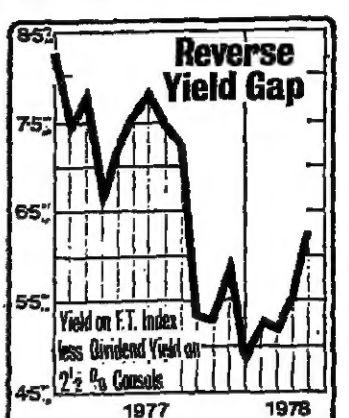
These figures will have a large impact on the monetary figures. It is now possible, for instance, that the authorities will have just squeaked within the 13 per cent. upper limit for growth of sterling M3 during the year to mid-April. On the other hand, there could have been an acceleration in domestic credit expansion last month, bringing back disturbing echoes of 1976.

Fortunately the size of the reserves, the rate of inflation and the balance of payments are all much healthier than they were two years ago. The securities markets will, as usual, be watching the evolution of monetary policy with decidedly mixed feelings. In the short run, higher interest rates are painful but nothing would undermine the confidence of investors more rapidly than indications that the achievements of the past 18 months are going to be tossed aside ahead of the impending election.

Already the Budget has posted the warning signs. More dangers lie in the round of competitive Parliamentary tax cutting which could put \$500m. or more on the PSBR before the Finance Bill reaches the statute book. In pointed contrast, Wall Street offers a current example of an equity market that is actually being encouraged by credit tightening moves.

So far in 1978 the U.K. securities markets have been notably affected by over-optimism. Four months ago they entered the New Year in a relaxed if unambitious mood, in the belief that

monetary growth had been kept securely within bounds by December's surge of gilt-edged buying, and that the balance of payments on current account would remain in surplus through the year. These ideas were rudely shattered by the terrible January money supply and trade figures, leading to the chartist-dominated bear raid



which took the FT 30-Share Index down to 433.4 at the beginning of March.

The 30-Share has twice bounced back strongly to above the 460 level, however, and is currently showing a decline of only 4 per cent. on the year so far. A less resistant pattern has been shown by gilts, with the FT Government Securities Index down 9 per cent. (touching a low last Thursday) while long yields have climbed from 11.3 per cent. to nearly 13 per cent.

Favouring equities

Thus the reverse yield gap has widened by over a point this year after a sharp drop during 1977. It could be argued that on this basis equities have become rather more expensive against gilts. In terms of cyclical stock market analysis this is certainly a period which can be expected to be favourable for the equity market. The economy is beginning to recover, but it has not yet acquired the kind of momentum which can lead to the development of serious financial pressure on the company sector. Compared with the past two or three years, interest rates remain relatively low. Demands on the equity market by companies for cash, moreover, have fallen right away since last autumn.

In similar conditions in the past—such as early 1972—weakness in the gilt-edged market struggle between MLR and mortgage rate. It will lengthily topping out process in

equities. The pattern is likely to be so clear this time for both the gilt-edged and equity markets were pushed substantially higher levels of year by the pressure of current inflows. Still, the trends corporate financial flows appear to be following a familiar path. Thus industrial and commercial companies achieved record financial balance in the second half of 1977, after a near £2 deficit in the first six months. This chiefly reflected the fact that the book value of stock (thanks mostly to reduced inflation) rose only £1.35bn. in the December compared with £2.3bn. in January-June.

Since the year-end, however, imports have been rising in accordance with the late economic comment from the leading Business School, importers have been taking advantage of favourable world prices and strength of sterling to buy stocks. In the past few weeks input prices have started to rise again, indicating a further rise in industry's demand for funds in the months ahead.

Private sector

Of course, the stocks imports could be run down again, and industry appears very liquid at present. The City remains concerned that not enough room has been left for the private sector to expand. In fact the Treasury Budget strategy depends much on the persistence of depression in world trade. wonder the financial markets were alarmed when a Chancellor appeared to promising more giveaways the event of satisfactory agreements on world trade. In the circumstances he will need to reduce his borrowing requirement, not increase it.

Meanwhile, figures published today show that the insurance companies and the pension funds combined reduced their liquidity by around £300m. in the final quarter of 1977. In the last year of the whole, out cash flow of £6.5bn., they £3.5bn. into gilts, £2bn. in equities, and £0.5bn. into property. With private individuals disposing of £1.9bn. of company securities during 1977, there only limited scope for increased institutional purchases of gilts.

It is dangerous to oversimplify. But the financial markets are likely to be inclined to view the current monetary skitish as an election year struggle between MLR and mortgage rate. It will interesting to see which way

Alliance Building Society tops £1,250 million assets



At the 114th Annual General Meeting of the Alliance Building Society held in Hove on 28th April 1978, Mr. L. Farrer-Brown, Chairman, reported record mortgage lending in 1977 and highlighted the Society's sustained growth during the year.

Mr. Farrer-Brown said that the noteworthy growth made by the Alliance Building Society over past decades was splendidly sustained last year. The results were a great tribute to the Society's investors, staff, agents and business friends who together had secured this achievement.

As a mutual Society, the Alliance was fortunate in the loyalty and magnificent support of its investing members. They provided the means whereby the Society could help its borrowers and they were entitled to receive the best that the Society could provide. By the end of 1977 the number of investors was over three times the number ten years ago.

Early in 1978 the Building Societies Association recommended another reduction in the rate of interest, the fourth reduction in 12 months. While following the recommendation of the Association regarding new accounts, the Society's Directors decided that existing investors were entitled to some token of their genuine concern to strike as fair a balance as possible between the interests of investors and the interests of borrowers. This was achieved by maintaining the existing rates of interest for all investors with the Society on 31st January 1978 and continuing to do so until 30th April 1978.

The maintenance of a fair balance between the interests of investors and those of borrowers was bedevilled by inflation and the mastering of inflation would make a major contribution to redressing that balance. However, the pound would not be a constant unit of value

even when inflation had been "mastered", as they say. He therefore echoed the hope recently expressed by a Bank Chairman that "after so much debate an acceptable form of inflation accounting will soon be agreed — and even more important adopted by the Inland Revenue".

In 1977, the Alliance completed a record number of new mortgages. Fifty one per cent. of those granted were to first-time buyers. That was just the latest chapter in the long history of the Society's contribution to home ownership.

The Society had little doubt that building societies could supply the impetus to raise the proportion of owner-occupation to, say, 60 per cent. in a few years and then up to 70 per cent. if the public wished them to. And if their continued support of the growth of home ownership was recognised as the dominant priority and they could themselves plan their lending policies so as to support an active housing market. Thus, by the application of private funds, building societies could make another major and timely contribution to the betterment of Housing.

The Directors of the Alliance might be unduly concerned about the dangers of building societies being hampered and hindered and having their "corsets" replaced by strait-jackets; but they believed it was prudent to be alert to such dangers, which might produce brakes on enterprise and efficiency. They had always been responsive to the changing policy requirements of Government and the Society was complying with the request for mortgage lending, though with reservations about such rationing.

In the last four years the rise in house prices had been less than the general rate of inflation, and indeed less than the increase in average earnings. So to build houses for sale had not been profitable, and there was a pent-up capacity to meet the higher prices which were required if there was to be an active and growing housing market.



For copies of the Report & Accounts and details of the Society's savings & investment schemes, please contact any Alliance Branch or Agent, or write to: Alliance House, Hove, East Sussex, BN3 1AZ (telephone Brighton 77644).

Weather

U.K. TO-DAY

RAIN but dry later. London, E. Anglia, E. Midlands Rain at first, dry later. Max. 11C-12C (52F-54F). S.E. and Cent. S. England, Channel Islands Cloudy, occasional rain. Max. 10C-11C (50F-52F). E. and N.E. England, Borders Dry, sunny intervals. Max. 11C-12C (52F-54F).

WEDNESDAY

Alexandria, 21-22; Athens, 21-22; Baghdad, 21-22; Bahrain, 21-22; Barcelona, 21-22; Beirut, 21-22; Birm., 21-22; Bonn, 21-22; Buenos Aires, 21-22; Calcutta, 21-22; Cardiff, 21-22; Chicago, 21-22; Colombo, 21-22; Copenhagen, 21-22; Dublin, 21-22; Edinburgh, 21-22; Frankfurt, 21-22; Geneva, 21-22; Gt. Yarm., 21-22; Harbin, 21-22; Hong Kong, 21-22; Istanbul, 21-22; Jakarta, 21-22; Johannesburg, 21-22; Kuala Lumpur, 21-22; London, 21-22; Lyons, 21-22; Madrid, 21-22; Manila, 21-22; Mexico City, 21-22; Moscow, 21-22; New York, 21-22; Ottawa, 21-22; Paris, 21-22; Perth, 21-22; Rome, 21-22; Saigon, 21-22; San Francisco, 21-22; Seoul, 21-22; Singapore, 21-22; Stockholm, 21-22; Sydney, 21-22; Taipei, 21-22; Teheran, 21-22; Tokyo, 21-22; Vancouver, 21-22; Warsaw, 21-22; Wellington, 21-22; Zurich, 21-22.

Dry, sunny intervals. Max. 9C-10C (48F-50F).

W. Midlands, N. Wales, N.W. and Cent. England, Lakes, Isle of Man, S.W. Scotland, N. Ireland Dry, sunny intervals. Max. 11C-12C (52F-54F).

Cloudy, with rain. Max. 10C-11C (50F-52F).

N.E. Scotland, Orkney, Shetland

Dry, sunny. Max. 8C-9C (46F-48F).

Cent. Highlands, N. Scotland

Dry, Max. 11C-12C (52F-54F).

Wales

Dry, sunny intervals. Max. 11C-12C (52F-54F).

HOLIDAY RESORTS

Accrington, 21-22; Ayr, 21-22; Bournemouth, 21-22; Brighton, 21-22; Blackpool, 21-22; Bolton, 21-22; Bristol, 21-22; Cardiff, 21-22; Canterbury, 21-22; Cheltenham, 21-22; Chester, 21-22; Colchester, 21-22; Darlington, 21-22; Doncaster, 21-22; Exeter, 21-22; Gloucester, 21-22; Grimsby, 21-22; Harrogate, 21-22; Hove, 21-22; Ipswich, 21-22; Leeds, 21-22; Leicester, 21-22; Lincoln, 21-22; Liverpool, 21-22; Loughborough, 21-22; Luton, 21-22; Manchester, 21-22; Milton Keynes, 21-22; Newcastle, 21-22; Nottingham, 21-22; Oxford, 21-22; Peterborough, 21-22; Plymouth, 21-22; Poole, 21-22; Reading, 21-22; Richmond, 21-22; Rochester, 21-22; Rotherham, 21-22; Southampton, 21-22; Stevenage, 21-22; Stirling, 21-22; Swansea, 21-22; Telford, 21-22; Torquay, 21-22; Totton, 21-22; Truro, 21-22; Wakefield, 21-22; Walsley, 21-22; Warrington, 21-22; Warwick, 21-22; Weymouth, 21-22; Wigan, 21-22; Windsor, 21-22; Wolverhampton, 21-22; Worcester, 21-22; York, 21-22.

Sonatrach negotiates \$1bn. worth of loans

BY FRANCIS GHILES

ALGERIA's state oil and gas company, Sonatrach, is negotiating nearly \$1bn. (£640m.) worth of loans from international banks. There are four distinct operations: two of \$250m. each, one of \$350m. and a fourth of \$170m.

The smallest of the four operations has been completed. Terms are known by the bank: it is understood to be the Banque Algérienne de Développement, the only Algerian bank entitled to provide a sovereign guarantee. One of the \$250m. loans, also to be guaranteed by the bank, is being arranged by six banks: Citicorp, which is also administering the loan, Bank of America, Arab Petroleum Investments Corporation, Bankers Trust, Bank of Montreal and Continental Illinois.

The terms include a maturity of seven years and a grace period of three and a half years. The second \$250m. loan will also be for seven years and the margin will also be 11 per cent. The third \$350m. loan will be for 10 years and the margin will be 12 per cent. The fourth and largest operation, which is for the Trans-Mediterranean pipeline, will include an element of export credits from Italy.

Mr. Healey also appeared confident that Fund membership was close to a consensus agreement that a 50 per cent. increase in quotas was desirable and that

German relations, especially on economic issues, had improved since February's talks in Bonn between Herr Schmidt and Mr. Blumenthal.

He flew back to Washington with Mr. Blumenthal, the U.S. Treasury Secretary. Both men publicly stressed that U.S.

Pressure on West Germany

German relations, especially on economic issues, had improved since February's talks in Bonn between Herr Schmidt and Mr. Blumenthal.

He flew back to Washington with Mr. Blumenthal, the U.S. Treasury Secretary. Both men publicly stressed that U.S.